



Title      Managerial qualities and management  
             development in the national health services

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MANAGERIAL QUALITIES AND MANAGEMENT  
DEVELOPMENT IN THE NATIONAL HEALTH  
SERVICES

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MPHIL

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UNIVERSITY OF LUTON

## DECLARATION

I declare that this dissertation is my own unaided work. It is being submitted for the degree of Master of Philosophy at the Luton Business School, University of Luton. It has not been submitted before any degree or examination in any other University.

Thavanesan Thavanayagam

28 day of October 2002

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## ABSTRACT

This research was initiated in order to establish the relationship between managerial meta-qualities and the learning style preferences of a senior manager having board level responsibilities. In this connection, the National Health Service (NHS) of the England and Wales was selected for the study. It is one of the largest organizations, complex in operations, having multiple objectives to attain. In the last three decades it is experiencing an on-going complex process of change due to political, economical, social and ethical reasons. Literature search found that no similar researches were completed before. This presumption was subsequently endorsed by those academics involved when consulted. It is evident that previous researches have taken diversity from the two main concepts: managerial meta-qualities and learning style preferences since.

Popular instruments were used to check the manager profiles, the meta-qualities profile and the Learning style preferences profile. The hypothesis tested the relationships between the two key variables, and its significance. The null hypothesis suggests that there exist no relationships. Further, this research contributes knowledge on certain facts where there are necessities for further examination in the future.

From the strength of the data it was concluded that having evidence for relationships in two combinations of the sub variables: Mental-agility-Reflector and Self-knowledge-Theorist. No relationship found between the two key variables in its consolidated profile state. The observed relationships were quite significant for the high score group compared to that of low score group. Research results also used to predict a balanced learner profile using the pertinent learning style preferences profile. Finally it recommends further imminent researches in this area, certainly with larger sample base.



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Signed

Thava.



## GLOSSARY

**Managerial qualities:** the specific qualities, through interfusion, energise a manager to act in comportment to the situations encountered, unlike all other average managers

**Meta-qualities:** Qualities are those specific managerial qualities found in most successful managers compared to less successful managers.

**Learning Style Preferences:** Learning Style Preferences are a set of four different style; a format taken to apprehend knowledgeable information in order to make a sense of meaning.

**Capacity to perform:** A potential composure possessed by someone to execute an action.

**Portfolio of Professionalism:** A set of capacities, skills, inertias, knowledge etc., possessed by a professional as enabling weapon to act.

**Incrementalism:** (Concept adapted from Lindbaum) – working only with available information, not exercising additional effort to seek any further information found necessary.

**Bionomic Components:** Components though not anticipated to develop, merely evolves by the inter-action of existing knowledge, experiences, learning curve effect, observation etc.

**Managerial Endowment:** A manager's personal qualities, the realized net product of possessed experience, knowledge and the inherited traits etc.

# CHAPTER 1

## INTRODUCTION

### 1.1 Research

The research is undertaken in the management development area, within the human resource development discipline. It is to seek information in an area encircling the managerial qualities (Burgoyne and Stuart 1976) and learning styles preferences (Honey and Mumford 1982). Though substantial works completed in each area separately, it was identified that the currently planned research is a virgin terrain, waiting to be explored. Previous works believed to have come closer to this terrain, but have had deviated or fragmented from its orientations in the past. After reviewing the associated literature, author personally communicated with forefathers associated to both areas, and found out that the belief was in fact correct. Author consulted the following academics:

#### 1. On managerial qualities

Prof. John Burgoyne,  
Dr. Mike Pedler,  
Dr. Tom Boydel,  
Prof. Rodger Stuart and

#### 2. On learning style

Dr. Peter Honey  
Dr. Alan Mumford.  
Dr. John Hayes  
Dr. Christopher Allinson

Copies of communications from Dr. Honey and Dr. Mumford are annexed in appendix A. Further they gave their blessings for this planned research. In this connection, the author proposed the current research to the Research committee at the Luton Business School, and sanctioned to be completed.

## **1.2 Aims and Objectives**

The research aims to identify the relationship plausible between managerial meta-qualities (those characteristics which are necessary to develop and deploy situation specific skills) and the learning style preferences of individuals. Literature evidence suggests that no empirical work has been completed in this area. The present work especially aims to contribute knowledge and attempt to provide avenue to address this gap. It will seek to throw light on the relationship between the two variables studied, and use this credible opportunity to attempt to relate and quantify the managerial qualities with that of learning style preferences

## **1.3 Research Base**

This work is carried out on a sample of senior managers holding 'board level' responsibilities at a British Essential Service Delivery Sector, the National Health Services Trust (NHS). The NHS Trust Head Office was approached and with their cooperation, three Trust from nine regions were selected. The NHS Management Development Unit was assisting to an extent that comprehensively supported to reach out and select the population for the purpose. The study selected the senior managers with board level responsibilities excluding that of clinical nature. It was chosen to ensure that the population will have a General Management related Management Development concentration rather than clinical oriented.

## **1.4 Information Search**

Literature reviews carried at length to reveal works associated to this study. It was found most previous works covered both managerial qualities and learning styles. Some further work moved to look at managerial qualities and performance, learning style and learning or learning strategies, learning and performance etc. There were no evidence to work linking managerial qualities and learning styles. Direct contacts were established with academics and researchers in order to learn the current strength of the related work. Online search too executed. To fulfil the aims and objectives, postal survey was carried out to invite data from voluntary respondents. Essential data were collected through postal questionnaire, and processed through computer-based models designed and developed by the author to aid the research.

The processed data were utilized to conclude for the research issues. In the event of upholding the aims of this research, it is believed to unfold influence on the Management Development programmes. All information searched was heavily associated to academic works carried out in the past, at a time when the management development was seen imperative. There were several views published and author only selected those especially attributable to the work in hand.

## **1.5 Presentation**

This thesis was ordered into chapters, which are comprehensively presenting the study.

Chapter two views the research in outset by looking the reasons behind the concepts involved and why it is imminent to study this concept. It talks about the management development exercises, learning styles preferences and the managerial qualities studied in a management domain, which is engulfed by change aspects, enforcing the applications of both concepts. This chapter also comment on the management development and associated exercises found within national health services institution. Finally, sets the paradigm governing this research.

Chapter three explores public domain literatures and documents appropriate and complement the current research. Valuable contributions have been identified and discussions were marshalled therein. This chapter places issues in a context so that this research gains its perspective, by ordering management development, managerial meta-qualities and learning style preferences.

Chapter four presents an academic brief on research methods leading to the construction of this research process. It elaborates the process gone into this work and reasons why it was decided. It also covers the illustration of design aspect of this work.

Chapter five documents all the research instruments used and explain the analysis process adapted for this research. There were three instruments used in conjunction to extract information to support this work.

Chapter six presents the results from the analysis supporting and testing key decisions. It illustrates the results in formations as how the current results evolved and illustrates the decision profiles of the conclusion, and mark the necessity for further research in this area. It was enveloped in this section in order to strengthen the value of thesis. The following chapter seven discloses the relationships issues examined in the study in detail. It also paves way for the conclusion in chapter eight.

### **1.6 Author Reports**

The author wishes to state that the preparation of this work, charts and tables (MS Excel), the construction of the thesis and the word processing (MS Word) etc were his own effort, without any outside assistance.

Author has not employed any second or third person contributions when completing this piece of work (though himself is not a native English speaker, and have adapted English Language as his second language). Formal acknowledgement and credits were documented for the information used from published work.

## CHAPTER 2

### THE STUDY

Today, every manager owns a degree of ‘capacity to performance’, and this is seen as his or her ‘portfolio of professionalism’. This professionalism is the kinetic synergy blend extracted from personal traits and attributes, and the knowledge both learnt and experienced. When managers take up offices, their behaviour is shaped by this professionalism. Based on evidence, it is now viewed as a portfolio, as these can be collected or added to one’s attribute over a period of time. All these time most of the management development work and time spent on middle to lower level managerial performances and associated issues. Minority of concentration also availed on high order managers, the senior managers. On this high order line, several issues were seen and discussed at some length, and tunnels were constructed with roots mapped on their functions, behaviour etc.

In the management domain, few discussions were found inspecting inter compatibilities between interacting variables. Managerial qualities and managerial learning style preferences are the two issues author is interested. This work aims to build a bridge of relationship between the two aforesaid (sets of) variables, at very senior management order, within the context of management development. Reason being, modern high order managers are the navigators of institutions, to drive the institutions into future. The context of management development is viewed as an activity to prepare an individual for the future more than equipping for the day’s work.

#### 2.1 Management development exercises

In the recent years, management development has taken various turns and twists. Today’s metaphor on management development views it as an investment activity to develop total human assets in the organisation. Traditionally, it was figured as a

costly exercise, a candidate for an option. In early days, similar exercises: skill-training, courses of planned study, all framed as management development for senior managers, and offered in restricted manner. Institutions were reluctant to make such facilities available for every one, due to monetary reasons. There is evidence that those development exercises available then have failed to deliver its purpose, in many fronts. The most common causes were as follows:

- wrong development for wrong person,
- selected programme is ill fit for the purpose,
- lack of self-interest among the participants, as well as
- engineering or production of such events was mere institutional politics.

In today's institutions, management development issues are voted for vitality. It is seeking to enhance a manager's threshold capacity holistically, and command one's readiness to seize control over his/her own future development potential. A comprehensive management development should prepare a manager holistically in order to respond to events unfolding ahead of him or her, from time to time (in their world of work), particularly by themselves within their capacity and to comply with stakeholder expectations.

Mumford 1988 recognised three types of management development;

Informal Managerial Accidental Process,

Integrated Managerial Opportunistic Process, and

Formal Management Development Planned Process.

Megginson 1994 suggest the management development associated learning tend to become either an emergent or planned learning. Author, out of his teaching experience, recognised that learning is a dependent of interest, willingness, condition around the learner and the contents to be learned. Further, it is also inferred from

literature review that a learner's job role and the associated environment both play an imminent role in learning. Harwitz 1996 speaks on how executives run their organisations, how they re-assess their performance and the effects of ignoring the fundamental differences when pursuing management development. His version of management development is somewhat culture driven, value based systems. Margerison 1991 figure out that management development must be linked and or associated to the business of the institution, as it is a political activity that involves appraisal, promotion and rewards on one end and creates the differences and inequality on the other end.

## **2.2 Learning styles**

Learning style is about how individuals embrace the learning. It was seen differently in diverse contexts. Style is a format or approach taken by a human that gives comforts in achievements. Generally, it appears to be associated with cognitive theories. It has been argued as sub sect of cognitive theories too. Human learning is a complex process involving numerous internal and external factors. The internal factors are those arising from the individual's own aspects like intelligence, abilities, temperament and health conditions as well as external factors like personal experiences, attraction, enrichment and recognition to subject matter. More knowledge and intelligence gained poise to direct more correct and precise actions in comparison to actions reflecting on incrementalism.

Learning style is widely regarded as being a subset of cognitive style (Hayes and Allinson 1993, 1994). Cognitive style is a concept that is concerned with individual differences in the process of collecting, processing and the retention of information for future use. This is a development of Piaget's pronunciation - how individual learn (maturation of intellectual thought and development-Mullins 1999). It is concerned with both process and content of an activity involved. The personal differences have impacts on the learning processes rather than on the learning contents. Hayes and Allinson (1993) (citing Messick 1970, Kogan 1971, Watkin 1976, Messick 1984), and Margerison (1992)) pronounce that managers have preferred way of doing things in their work-life and in learning. They accept what is good (nutrients) and reject



what is not good (non-nutrients) for them, in their work and life. The decisions concerning nutrients and non-nutrients are arbitrary, directed by one’s perceived values and interest. Author out of his teaching experience (over a decade) was quite comfortable to make this statement.

A model of learning pattern was first developed by Kolb in 1974 to understand a person’s learning patterns. Subsequently, working ahead from Kolb’s model, the learning cycle, Honey and Mumford pronounced the conceptual model of learning style preferences in 1982. The Kolb’s model of learning cycle demonstrated that individuals might have one or more way of approaches to their learning. Kolb developed a set of learning styles: Accommodative, Divergent, Assimilative and Convergent, (Mullins 1999). Honey and Mumford work simplified Kolb’s cycle, and refined the application process. Honey and Mumford model deliberation:- Activist, Reflector, Theorist and Pragmatist applied on the managerial behaviour that can be easily observed. They labelled the styles as follows:

Activist
Reflector
Theorist
Pragmatist

Figure: 2.1 Learning Styles (Honey & Mumford -1982)

This proposition assists a manager to easily identify what one’s approach could be or whether there exist a predominant approach. Various researchers established that understanding an individual’s learning approach, the learning style, assists to enhance their learning effectiveness. It has facilitated most management development providers with developing and offering various learning activities to suit participant’s varying learning style. All works on learning style and learning style preferences conform that an individual will have one or more styles at any one time, and also

possible to have a dominant style among the preferences. Under cognitive concepts and learning cycle/style arguments, it is possible to accept that individual differences are contributed by the diverse learning approaches adapted by the individual. An effective or integrated learner will be equipped with necessary energy to manage with all four learning styles even though they may have one dominant style at any one time. This dominant style will have an effect on an individual’s performance and also causing the differences between two individuals.

2.3 Meta-Qualities

Burgoyne and Stuart posited that there is no universal set of qualities available in order to perform effectively. They coined the concept of ‘meta-qualities’ through their research. The meta-qualities (see appendix B for details), possession of which enables managers to learn situation specific skills quickly and be able learn to deploy appropriate action to specific situations.

Creativity
Mental agility
Balanced learning habits
Self-knowledge

Figure: 2.2 Meta-Qualities (Burgoyne *et al* 1976)

Burgoyne’s research provides bespoke abilities to develop and deploy managerial skills and abilities that are needed. Also, it gives the strength to learn the new form of responsiveness to a specific situation. On this basis, Burgoyne’s meta-qualities energise the managers with those aspects that make a manager good at acquiring other skills and attributes to meet demands of a specific situation. Williams 1996 commented on such potential as “... utilised by managers to create and adapt the

specific competencies ideal to a particular situation, resulting in effective performance”.

Managerial qualities are those aspects evolved or emerged due to the interaction of those possessed traits, characteristics, knowledge, experiences and so on, that facilitates effective managerial functions. Managerial qualities vary from person to person. Prevailing literature evidence that there exist no one ideal set of qualities to apply across the domain. Managerial qualities are seen as a blended output realising from more than one factor such as learning, experience, knowledge, skills, attributes, culture etc. The author was unable to locate evidence that could clearly confine quality ingredients. It is perceived that managerial quality is such that it is a bio-product of a manager's possessed potentials. Under the pretext of having no common sets of qualities, earlier researches have identified a few sets of qualities that exist in managers.

Meta-Qualities are the high order qualities possessed by most successful managers rather than less successful ones. It is presumed that most senior managers have these qualities to order their job functions. The qualities attributed to an individual create variation in personality differences, parallel to that of a biological DNA. It is supposed that meta-qualities assist managers with better performance, and ability in securing the necessary knowledge and skills specific to situations. This leads to assume that necessary qualities could be cultivated or implanted in a person if knowing what is needed, and where or how to get it. This falls on to the learning. The quality ingredient apparently has an impact and effect on an individual's learning style or vice-versa. Because, the way an individual collects data, the way the data is being processed and the way responses are made out of those vary from person to person. This must be lying on those specific qualities that are different from person to person. The hierarchy of the types of personal qualities believed to generate proponent hierarchy of learning types. Burgoyne *et al* found that the meta-qualities are of great importance among those personal qualities attributable to top managers, ordering situation specific decisions. Having such high order qualities that assist them in learning, determining those learning processes compatible with that of his or her individuality (Burgoyne 1976, Reynolds 1997). Making judgements on the validity of

learning is also a dependent on the possessed qualities. Looking at the work of Pask (1976) on learning strategies, learning takes place with a purpose and typified to personality variations. Reynold's examination on the theoretical assumptions underpinning the learning styles is highly individualising. This essence leads to seek verification among qualities and learning styles. In this context, meta-qualities of individuals appear to provide reasons for the personal variations. Search for appropriate agreements in the literature leads to believe that there is no such works exist, to express the relationships between qualities and learning styles. Author personally communicated with Honey, Mumford, Reynold, Hayes and Allinson to verify this presumption, and all responses strengthened this belief. Under advises of Allinson and Hayes (see appendix C), author's effort to trace adequate related references among On-Line resources failed.

## **2.4 Managerial domain**

The managers 'terrain of work' or the rewarded 'kingdom of power' is currently engulfed by empowerment, intrapreneurism, inter-actions, worker-apathy and communications in contrast to bureaucratic culture and protocol of events seen in the early period. The significant influence in modern entities is the stakeholder expectations that are commanding effectiveness and efficiency in managerial performance. Senior managers attribute their success to their own drive and performance. A manager's own drive is a product manufactured from his or her possessed qualities. Managerial recognition initiates opportunities for management development, and delivering managerial performance to secure achievement and success. It has been found from various literatures that managers cannot develop themselves if they cannot set objectives to be achieved. Therefore, to develop, a manager must take responsibility to set one's own development goal, and the domain must facilitate such opportunities. In the recent past, within the human resource publications, there is a cry for organisations to make such facilitations. In reality, facilities are minimum for one or the other reasons. Lack of common understanding and agreement on the need for management development within the organisation, in terms of total promotion in the work place, sounds like another problem.

## 2.5 Managing Change

In today's context, change leads to chaos unless dealt appropriately (Stacey 2000). Considerable amount of research has been carried out within this context to identify issues evolving around and governing this concept in general, and precisely managing change. Works also exist on managerial performance linked to change, and the ingredients vital to meet the change associated to performance. Various work settings have seen managers embarking to execute change-implicated entities either amiss prepared or apt prepared. It is evident that though managers are adequately prepared for the occasion, the institution is either ill prepared to receive the change or else moving faster than necessary. Reasons purely lie down on changes sanctioned by various factors:

- environment, economics, organizational or industrial politics, stakeholder expectations, developments around the boundaries within which the institution operate, organizational philosophy etc, from an organisational view or
- diversity in managing personality owing to skills and ability differences, knowledge imbalance, the dominant management style, learning style preferences, attributes, capacity differences and professionalism are factors from a person's view.

In a work domain when trying to deal with change organizational politics, lack of stimuli or strategic incentives from either a manager or the organisation does hamper those passable preparations. Managers must be capable of dealing with such, and they should have energy to so.

## 2.6 Managerial Performances

Managerial performances must be composed effectively and successfully to survive through the constant changes. Change influences generally emerging from socio-political and or socio-economic environments more than any other facets a working life could face up to. It is a fact that a manager's performance is subjected to the influences of environment, personality differences, institutional climate and the paradigm governing those performances. This could be best illustrated as shown in figure 2.3.

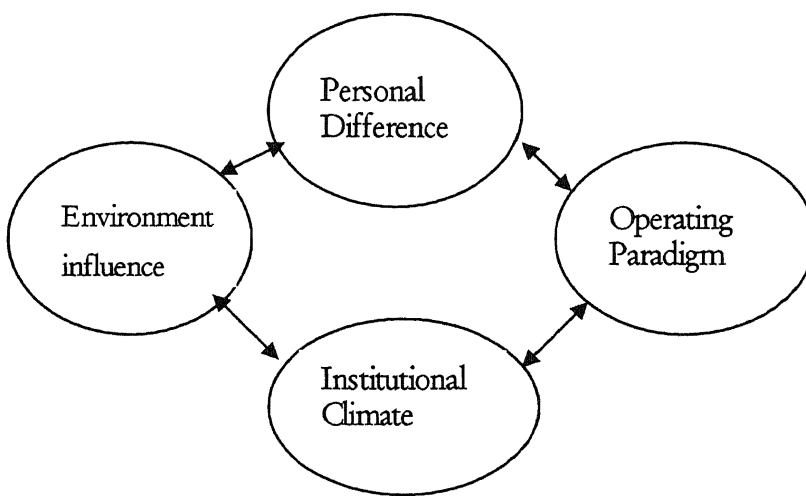


Figure: 2.3 Managerial Performance Drivers

Suitable situations should exist for the accurate performance. Alternatively, the institution's climate must fit for efficient performance, and all these rest on the manager today. It is a known fact that personality differences of a manager have other sub factors built within it. Similarly, there are sub factors that regulate all other three variables too. Among the personality variants managerial qualities takes a prime location.

Seeking appropriate performance of a manager draws more than sheer ambition for performance, far more than a career leap, or a smart strategic shift in the manager's uneven playing field. Managers need to enchant their readiness to deal the situations with courage and autonomy, under the enlisted framework on each situation's merit. Managerial ill performance and the consequences of such performance are both due to lack of 'manager-preparations'. This mounts to frustration and friction. Sometimes

it leads to forced employment migration, own career change or even employment change. Lack of preparations and facilitations by the organisation deter a manager's performance, create frustration and ill performance. From a mechanical view, if two drive wheels are to drive each other, both wheels must be designed and grooves aligned to specifications. Any minute discrepancy definitely fails the performance under any conditions. Similarly, manager-preparation is not a value addition exercise to blame later. Therefore, in managerial practices, either a well equipped manager only or, only a better-prepared work setting both will never earn the target results. Instead, both situations deliver grave concerns through dysfunctional behaviours and conflicts, which subsequently lead to the draining of valued managerial resources. Refusing to blending the potentials of a manager and the work setting using organisational politics and philosophy - the culture, leads to the results of non-achievement of performance.

### **2.6.1 Works associated to Managerial Performance**

Since 1976 teams of academics like Burgoyne *et al* (on Managerial qualities and Performance), Pettigrew *et al* (on Change in Public Services), Stacey (on Change and Chaos), as well as various others have reported on issues related to management development, change, managerial abilities etc. linked to performance. Honey and Mumford, Boyatzis, Hays and Allinson and many more have looked into learning of the managers and comment on the learning styles and the managerial productivity.

During this time, the Manpower Service Commission, the British Institute of Management and the National Economic Development Council studies evaluated the strengths and weakness of the industry, its managerial workers and the necessary but details of lacking managerial skills and abilities. These also illustrated the way and means of how management development was delivered to those in the British mainland. Comments were made in the report on managerial activity by comparison between Europe, UK and USA. It highlighted the contents and processes in the manufacturing of management development for managerial hierarchy and explicitly identified the shortcomings. Most popular reports at this time were Making Managers – (Handy 1987) and Making of British Managers – (Constable & McCromick 1987).

Various academics like Burgoyne (1993), Lane & Robinson (1995), Holman & Hall (1996), and Thomson *et al* (1996) have also criticised. Some identified the required managerial skills and abilities, where some considered the development of vocation related competences, some classified the best and bad units in terms of performance requirements etc. Some academics proliferated on contents and processes, proposing the field related concepts to generate specific management development to cater diversity of industries. Therein, it is argued that competency as a product of possessed personal factors: characteristics, traits, knowledge, skills and qualities. The author like to reiterate that the current work will distant itself from exploring materials related to the ‘concepts and issues of competency’, and will not address any matters linked to the ‘concept of competency’. It may only acknowledge where appropriate.

## **2.7 Reasons for Choosing NHS**

The NHS is the largest employer in the European Continent. It is seeing consistent change in most of its component units in the last three decades. In the England and Wales, the monument of change is always seen within the National Health Services. NHS is a champion institution expected to produce a healthy and wealthy society in the UK.

NHS has been a political playing field or a gaming ground to secure democratic votes every five years. The popular political parties appear to infuse hidden agenda within concept of NHS Reform, to compete for votes in the UK. Any move to compromising the health services activities to winning the votes, or to manoeuvre health services in an overt field by unspecialised decision makers (politicians) is unacceptable (in terms of managerial ethics). What commonly seen are positive investments in areas commanding votes and, negative investments on concerns voiced by the managerial staff that is inducted to deliver the professional health care service (i.e. management development)?

The reform initiative by Griffith Report started some three decades ago. It recommended significant changes. The most recent work (at the time of commencing this work) was that of Dawson in 1995 on “Managing in the NHS”. It identified the



issues of managerial complexity mishandled during the post Griffith era. Most issues recommended therein sets light on the humongous change issues that managers have learnt but failed to notice for themselves. The ultimate comments pencilled-in are changes in the exiting culture within the NHS, which eventually leads to reforms. It is evident that the culture change recommended therein was susceptible and subtle in its own merit, for political motives disseminated in NHS. Most potentials managers dealing with such situations are reluctant to apply their personal professionalism or elude under the pretext of workstation limitations. This temperament is due to institutional politics lingering within NHS. In order to seeking respect from its stakeholders, the general public, the introduction of General Management paradigm in NHS was quoted in the reform report. Business Process Restructuring and redefining its operating formats are both taking place at once, for both political and reform reasons. All of these demand management development there.

In NHS, change is seen irrevocable and irresistible under operational and political reasons. Jobs are relabelled, positioned are redefined, operating manuals are refaced in the name of reform. But, the operating culture seems stiff to be reshaped because of the nature of the embedded culture. The required change is to be constructed on the development of managers, creation of appropriate management talent hierarchy and the deployment of management qualities definitive of delivering the reformation objectives.

### **2.7.1 Works on NHS linked to Management development**

Some work has been delicately focused on essential public services institutions in the UK. Griffith report is the fundamental document to guide the NHS, and make able to develop and deliver all the requirements to this end. Previous works on Management development by Handy, McCromick, Silverman and many others (referred earlier 2.6.1), all contributed to the thinking of the reform of NHS. King's Find, a flagship organisation within the Health Services especially contributed to the development of Management Education initiatives in the NHS. It created the Health Service Management Institute to aid transfer of knowledge and expertise through conventional modes, as well as a facility for the diffusion of knowledge to interested circles.

Pettigrew (1989) who looked at the NHS in post Griffith era, emphasized managerial abilities and skills requirement in implementing change. Spurgeon (1990) discussed issues related to managerial behaviour and the performance of the general managers, and concluded that implementation of change warrants various managerial activities. Farlie *et al* (1996), Tietjean (1991), D Nicol (1990) and Ashburner *et al* (1996) all pressed for the need of effective managerial qualities in dealing with change related properties like, “hybrid management (Ashburner), “mixed-mode” of management (Pettigrew), and the requirement of white paper (Nicol).

Dawson’s work mainly concerned with the current practices and future requirement of the NHS management, including that of the senior management development and organization development in the NHS. Various issues were well thought-out, including that of the strategic requirement of Management Development targeting the “new” organization, the changing organisation and those attributed abilities of senior managers (with managerial background). Recommendations include designing and developing an infrastructure that supports self-development towards careers; the need to support the management development programmes that encourage senior managers to have an opportunity in taking advantage of the change related activities as they occur relating to managerial and individual performance; management development programmes should normally provide opportunities to develop human abilities.

### **2.7.2 What is known at NHS on Management Development?**

At the time author investigating (for this work), there appears to be some management development initiatives gaining ground. A separate but strategic unit exist with responsibility for developing and servicing senior manager development programmes. It was collating operational and tactical level development programmes designed and developed by external higher education institutions and the King’s Fund. At the time of this investigation, developments were instigated for an initiative to develop Chief Executives in NHS. (Author was denied better information in this regard). From the author’s understanding, it was believed that the permeating NHS culture and then present operating systems (1996-1999) prevented author gaining detail understanding on Management Development manufactured by those agencies for NHS senior managers.

Other contributing factor is the culture saturated in some units that restricted responsible staff from disclosing facets. The author was barely told that the initiative was called Chief Executive Development Program, developed in collaboration with two or three discrete external institutions. Author understood that such programme apparently an offshoot of traditional classroom based degree style, offered by the NHS specialists for those in the NHS. The concepts of work-time learning, information sharing, are some of other practices integrated into this activity and a kind of assessment and qualification are final. Higher education institutions also offered specialist qualifying level courses with a structured contents and traditional class room processes.

## **2.8 The study at a glance:**

The author limited to studying the management development aspects of the senior managers in the NHS Trusts, who are responsible for seeing the happening of the 'new organisation'. The term, 'new organisation' is the kind of organisation sought after by the reform with all character propensities. It is an ideal ground to visit and explore the objective of the present study, to comment on those senior managers' potential readiness to development and commitment to personal development. The fundamental aim of the study is to establish a relationship, if any, between management meta-qualities, and the learning style preferences of the senior managers. It will not appraise any issue on competency though this concept is integrated in managerial qualities to some extent, and to skills and attributes.

### **2.8.1 Research paradigm**

It is definitive that most NHS senior managers involving in the processes have some form of management development agenda of their own, or they should have one. The NHS must also have adequate designs of management development agenda to nurture their senior managers for their requirements.

Managers today take for granted that required skills, abilities and capacities could be learnt and composed on demand. The governing paradigm is that the concept of 'meta-qualities' link understanding of managerial learning and development process with the understanding of managerial performance and effectiveness. This earns

credibility that managerial performance is a dependent of management learning, and the better performance is realistic if the required managerial qualities are present with the performer. The issue here is that, the learner can acquire the vital skill or ability or both, if s/he is capable of understanding what is needed for him/her in relation to the performance. Having such capacity helps to earn mandatory potentials of performance, which are situation specific. Therefore, the second paradigm evolves here in sight that performance is also depending on the portfolio of potentials possessed. Such varying portfolios make two individuals different in term of performance.

From the view of cognitive theories, individuality differences descend from the process of learning under taken due to personal factors, the role of the individual and the situation surrounds. Individual behaviour is driven by the individual factors culminated by those potentials possessed by the same individuals. Therefore, it could be stated that both the learning and qualities have a strong effect in the way an individual behaviour is shaped.

In 1982, Honey and Mumford (furthering the Kolb's work on learning) pronounced that an individual will have more than one learning style at any time, and also there will be a dominant learning style present. The dominant learning style might play a part in an individual shaping his/her behaviour, vice-versa the performance. Counting on all issues discussed here, a relationship between the managerial qualities and the learning style preferences allow a manager to selectively learn what s/he needs for efficient and effective performance, using the possessed portfolio of potentials. Therefore, it is possible to pre-suppose that manager's learning style preferences will play significant role in selecting an individual learning process, which intend have bearing on the qualities developed or vice-versa. Further this is more significant when it is found necessary that a manager need to learn something to add to one's own portfolio, to perform. This galvanises the scope of the present work on the learning style and managerial meta-qualities, that both must be interwoven in some degree of strength, for the successful managerial performance.

The author proposes to assess both meta-qualities and learning styles preferences. Burgoyne et al Qualities model and Honey and Mumford's Learning Styles Preferences model both are used when ordering a possible relationship.

Literature Review and self-investigation both established that so far no work has been carried out to establish the relationship between managerial meta-qualities and their learning style preferences. Apparently, no much empirical work exists in the public domain as endorsed by the researchers involved. Therefore, the author settles to respond to this academic gap through the present work.

### **2.8.2. The necessity**

There has been no study so far undertaken to establish the relationships between the managerial meta-qualities and the learning style preferences. Establishing a relationship will assists in many ways: measuring one variable of a subject by the other variable, or determining a subject's profile using the relationships etc. Therefore, this research is to test for relationship between learning style preferences and meta-quality variables. In this event it demands further tests on the identified relationships between the variables on its significance.

Secondly, in the event of any observed relationships tested for its significance in contexts of meta-quality profile and learning style preferences profile, a global profile score will be developed for both the variables. Thirdly, the sample will be grouped into high and low order to establish whether there is any significance on the observed relationship propositions between the groups.

The next chapter attempts to comprehend the public domain literature on the matters of interest in aid of this study. It looks all three issues: management development, meta-qualities and the learning styles preferences.

## CHAPTER 3

### LITERATURE SEARCH

#### 3.1 MANAGEMENT DEVELOPMENT

Management development has been in existence for several decades. There is no one definition available for the term 'Management Development'. Reason being it encompasses more than one aspect - institution, task and human development issues. A common view is all about the facilitation of better management of the institution in every aspect, and ensuring that these are in fact achieved through appropriate activities and personalities. It viewed as an integral part of the organizational development. In the past it has taken, and still is taking different shapes, formats plus varying perspectives for both the users and providers more than the beneficiaries.

In 1987, a series of influential research reports (i.e. Making of Managers etc) criticized the UK employers for providing inadequate management development to managers over and above the operational level. It argued vehemently, that there is no management development for strategic managers. After several research and reviews in the late eighties Management Charter Initiatives attempted to develop skills oriented development and assessment programs. These subsequently extended to embrace senior level managers too. British Higher Education Institutions attempted to offer development programmes to mature persons, outside the formal curriculum (school to university) entry structure. There were both support and criticisms for such kind of management development.

### 3.1.1 Content and Process

Several academics have invested valuable resources in understanding the content and the process, the type and nature of management development exercises. In modern institutions, management development has been gathering momentum at the core of the human resources development, managing change as well as those striving to excel. Molander (1977) suggests in the context of changing environment, that management development should be focused to eradicate the pressure surfacing from the change without attempting to furnish those actors and players with equipment to deal with the change. This is vital in the market place where person or job focused management development programmes are manufactured under the management development ensign.

Management development is gaining deeper attention with the increasing importance to Knowledge, Information, Service and Technology based institutions, and the modern formats of delivering the objectives. Professional and higher education institutions support the same. Providers have counted on the participant attitude, the institution's current needs and or future requirements when designing the structure of knowledge based programs, action-learning programs or facilities to experiential learning both at work and away from work, and Information Technology based self-development facilities. Most of today's management development programmes come with restricted recognition, where some have qualifications attached. Simultaneously, still there is limitation to recognising and qualifying the emergent learning infused on a manager outside the formal patterns, and the benefits enjoyed by a manager out of a third person's learning curve (i.e. Fault prevention exercises). Any management development exercises at strategic level must seek to be a process, and not as an event for a solution (Horwitz 1996). Therefore, the presumption is that a Management Development should be seen:

- as essential part of the institution's survival and progress,
- to fulfil stakeholder expectations
- to eradicate work related pressure and create quality of working environment
- to develop the management rather than an individual itself
- not as a quick solution but as process for effectiveness.

### 3.1.2. Management Development Coverage

Management development must be unrolling to cover all issues governing organizational development, employee development, facilitation of learning organisation more than investing on prescription of contents or processes. In line, management development must be holistic and attempt to raise the participant performance level holistically. Traditionally, it was more towards facilitating planning, organising, coordinating and controlling in the context of technology, operation, systems, staff and knowledge, and markets. Today, it is all over human resources, empowerment, globalisation, business process reengineering and so on, concerning the uplifting and maintenance of the organisational health.

Literature review reveals strong bond between managerial performance and management development. Herein, management development facilitates autonomy, creativity, innovation, capability and capacity enhancement, as well as competency and nutrients for enactment. This is a reflection on the development of human resources in general, and in particular, those human resources designated at strategic level.

Coulson-Thomas (1997) based on his study into corporate renewals, suggests that commitment to management development must come from the board level, to be people focused and the board must become the champions of learning. It was in a context of improving managers in order to improve the organization. Further, though managers are employees of the institution, the facilities should develop their capabilities more than shifting them along the institutional flow into the future. It should be focusing to develop those specific workers whose contribution enhances the institutional results (Harvey and Burcher 1998). In this frequency, it observes that the commitment to developing the strategic managers (board level and above), and the responsibility to development both lies on those individual managers themselves. Reason being that there is no one else exists above him or her to direct and motivate. Institutional development through management development is anything but rational and ordered; it is a world dominated by self-interest, competing coalitions and conflicting goals. Generally it was created by individual initiatives, and the success of it becomes models for others to follow.



Collin Talbot's (1997) review shows that during the end of 20<sup>th</sup> century, most available management development programs are concentrating on tactical and operational managers. These programmes are totally premeditated, and outlay the strategic managers with strategic focus. In the last few years, progress is seen within this domain, promotes that current programmes are aiming to develop Competency of the kind found necessary for institutional performances. Programme providers seem linking specialization with that of development initiatives, and attempts to offer multi facets packages of development units. Multiple units intend to integrate to cater for specific speciality in many ways. Concept of flexibility is one commonly outspoken here. Most available programmes are apparently linked to processes that were attached to qualifications. Now, these expose the gaps in the management development arena to users and providers.

Managers, who develop themselves through non-traditional modalities, have enriched their performance capabilities very much: better than earlier or differently, and contribute to the success of the institution. Today these managers are invisible in the eyes of the traditions, for lack of certification. A manager can grow up in a job over a period through the ranks, has enjoyed his major part of learning emphatically on the learning curve of both his and other colleagues around. He will fail to document it all along his work life but may have risen to a senior position. Now, there is no evidence available to suggest that his development can be a recognised qualification in one or the other form. The author when interviewing a senior manager during the pilot study tumbled on this concern, and the manager involved presented himself as an ideal example to this issue. This manager sighted a significant number of managers under this classification.

Most providers offer packages and bundles of development programs to variety of uses, all but linked to a kind of assessment and qualifications. There are managers who refute such bundles and packages for personal reasons but have enhanced their potential capacities differently, but have had no adequate recognition to it. This is down to satisfying the governance of the processes of recognition. Alternatively, such managers were seen differently (those rise from bottom within the employment by longer service and experience), enjoy inequity in organisational benefits.

Questions answered on whether management development adds value, or is it worth the investment. Encouraging arguments presented on better performance and discontinuity of bad practices both leading to organisational success (Graves 1976, Margerison and Kakabadse 1985 Horwitz 1996). The general outcome of a good management development is all about raising the level of the whole activity, the manager's action and the operations of the organisation. Those argued against cited institutional failures (i.e. culture conflicts and systems failures) as main deterrent for effectiveness and value. It appreciates that management development's main role is to shape the culture within the organisation and to establish a system that will deliver the success. Horwitz (quoting Hofstede) holds the risk of ill fitting the management development by ignoring the fundamental differences. Burack *et al* (1997) suggests that the following seven features of management development increasingly distinguish high performance organizations from the average.

1. linking management development to business plans and strategies
2. seamless
3. global orientation and cross culture
4. individual learning focused with the context of organizational learning
5. corporate culture and the specific management development designs
6. a career development focused
7. focused on core competencies.

In the late 20<sup>th</sup> century, there is evidence to believe that senior managers were heavily developing certain skills: the communications skills, problem solving and networking skills. During this exercises, and while they put such into practice at their work places they are learning a few other bionomic components too. Such bionomic components are those though not anticipated to develop, it merely evolve by the inter-action of the developing skill components and inflict effects on managers. Their personal commitment to improving performance drives them successfully through their learning curve, and helps them to perform better. This kind of learning is not formally recognised or else, there is no set format to recognise this element. The Assessment Centre and the resembling activities that grew during this time failed to come up with any appropriate methods – only checked the generic and specific competencies (to a great extent) but finally blended in with that of the traditional qualification documentations.

### 3.1.3. Management Development Function:

According to Storey (1992) Management Development must act as a device to invigorate the jobholder, equip that person with necessary but appropriate capacity to respond and answer the situation. In this sense, it must provide the jobholder the kind of leadership to identify and seek one's own development requirements, more than an external prescription. Nowadays, it is common feature to rest the causes of failures to lay-up preparation, non-anticipation, resource limitation, or on the wrong targets. Very often, institutions do not count on appropriate management development initiative as a factor attributable to its failure. This view appears as an economic issue more than a strategic issue. One has to appreciate that management development is the energy that drives the institution from a low order profile to a high order profile, when translating corporate aims into versatile results. Ignoring the management development totally or partially will lead to adverse eventualities.

Senior managers attribute their success primarily to their own drive and capacities (Margerison 1993). Such managers are proud of involving and interacting with unknown situations, and gain more professionalism out of it. In this context, management development should create more appropriate learning opportunities for the senior manager involved rather than simply attempting to solve either an old or a persisting problem using such opportunities. In fact, it is what happening and that is where more money being expends.

Literature review exposes another fact: an effective management development programme must empower a manager to take responsibility for one's own future development requirements, and facilitate opportunities to developing others at the work place. This is a kind of realisation of the learning element and enjoying the results. It believed to be mobilising and ordering the new potentials in the form of career development that eventually assists employability, knowledge transfer and abilities. This function mostly distrusted in economic striven organizations, as avenues for employee-turnover or skill-emigration. In several institutions, author noticed heavy investment going into management development to managers under some kind of contractual knots to retain the employee after development. Such contracts tie up the cost of management development to future of employment,

mostly not for productivity. This treatment is done to prevent employee migration and draining of knowledge. Unfortunately, expected results of the management development are not realised.

In few cases, management development is a motivator (Author's observation). If an appropriate management development exercise is adapted the employee will enjoy one's own career development within the institution more than seeking other external opportunities. Further, it will effectively prevent knowledge drain-out. In this line, the management development is a broad concept covering the vision, mission through to culture and the societal responsibility of the institution.

Management development is also seen as the change management tool. It is providing change agents, the senior managers the required instrument to drive the change through the employees. In this context, management development regimented both knowledge reinforcement and skill building as major component parts, but stretches further to accommodate and assemble a person's own capabilities and behaviour profiles. Today, a successful management development should secure a balance of every aspect of the person, personality, institution, need and objective, as well as the expectation and results before enlisting a person on the development exercise. It should provide a climate for conferring empowerment and management support for learning for both the individual and institution.

## **3.2 MANAGERIAL QUALITIES**

### **3.2.1 Managerial qualities**

Managerial Qualities is a well-spoken concept in the management development arena. Several academics have provided various meanings to this term. Managerial qualities are seen as blended products of traits, attitudes, knowledge and experience of a manager, the aroma defused by the learning in a manager out of managerial activities, events and functioning. Boyatzis in his work has listed a set of qualities. Mumford observed another set of qualities in managers whom he has studied. Burgoyne and Stuart explored and pronounced the qualities linking associated to three groups linking to the out come of learning and performance.

### **3.2.2. Views on Managerial qualities**

Individuals are different, and their possessed qualities do vary. Literature search demonstrated the fact that there is no one set of standard managerial qualities exist, but appreciate that some managerial qualities are commonly found in most successful managers than less successful ones (Burgoyne and Stuart 1976), (Grainer 1992), (Thomas 1994), (Burgoyne 1989). Further, those specific qualities become the axis of a manager's management attributes, knowledge and skills s/he possess to gather those basic requirements. These qualities are the realized product of possessing knowledge learnt or gained by experience, inherited or adapted skills and other supportive individual attributes. Burgoyne recognised this managerial qualities as and be viewed as '...a derived synergy infused from the inter-action of those elements that are driving the managerial behaviour at a given situation'. Researchers have seen this attributes, abilities, capabilities as well as learning effects of the experiences.

A very sensitive issue in modern institutions is the decision concerning work design, organization and humanizing the work. More than organising, institutions are well concerned with getting their activities together effectively and efficiently. This put pressures on the senior managers to lead, and direct the activities as part of managing

the changing organisation. Therefore, senior managers need to achieve what they are responsible for to their institution, more than their job itself. Considering a senior manager, these responsibilities are viewed in two folds:

firstly towards the institution and its stakeholders to secure the designated goals, and secondly, it is the development of self for equipping with necessary endowment and attributes.

Such fulfilment expected to help a manager to deal with, and handle career challenges.

### **3.2.3 A possible definition**

The author detects managerial qualities as:-

‘those specific qualities, through interfusion, energises a manager to act in a comportment to the situations encountered, unlike all other average managers’.

Traditional belief is that the qualities are a blend of characteristics attributable to a person, to his/her habits involuntarily. But, it is evident now, that a person’s attributes and characteristics can be reshaped and nurtured to a desired level (Stodgill 1950).

In modern organisations, issues and decisions concerning managers’ abilities and performances are becoming awfully dynamic and fluid. Directly or indirectly, it demands development to preparing the managers to achieve what they are responsible for. Further, those changes enacted by the managers’ actions force them to be prepared, to anticipate and deal with the consequences. Another issue is the variety of management across the situations. Institutions are driven economically today, and are only interested in survival more than securing results. In this context, pressure is mounting on senior managers to deliver what they are accountable for, and be held responsible to it. As discussed earlier, senior managers are not expected to function like earlier days. They are required to secure requirements of and for the organisation. To this end managers perform various tasks, organize resources for efficiency, develops networks of knowledge and technology, transfer and manage the

information flow and many more. Graves (cites Beishan and Palmer 1972) on managers spending more of their time with their staff; (Rosemary Stuart) for liaising functions; (Fiedler 1967) on self-performance, all influenced by the personality traits of managers. Burgoyne suggests that a manager's performance is affected by the role as well as the work settings. This commits the manager to be able and resourceful. In this context the qualification or the experience only stream becomes questionable compared to what a manager is capable of doing or can achieve. Academics have exposed what managers say they do and what they do in real time; manager's own perception of his/her own need is based upon manager's ability to deliver one's own activities by comparing what s/he have and what is wanted. Graves also argues that the actual behaviour of a manager tend to vary from what is recorded.

Further, if the manager is not adequately equipped or geared to face up to the changing situation, then s/he is bound to face conflicts - frictions within or frustrations among operatives. Where a change is occurring faster than the manager's preparedness to it, then the manager will be trailing behind the institution's expectation, which releases the friction. On the other hand, if the manager is geared in abundant and equipped with future requirements of the new institution (devolving after change or ready for the change), and readily available to service the changed situation, but the institution and its related components are yet to be fine tuned for the change, then the manager will not be able to apprehend the results. Instead, s/he will be bound to clash with those institutional facets that thrust frustration on him or her.

Senior managers are the key occupational group in a productive society. They need a talent - the futuristic managing talent, which must assist them to handle situations instantly and spontaneously when managing the changing situation. In this juncture, the effectiveness of performance tends to rely on three factors; managerial traits, work settings and the learnt knowledge from the institutionalised custom. These can be best illustrated as in figure 3.1.

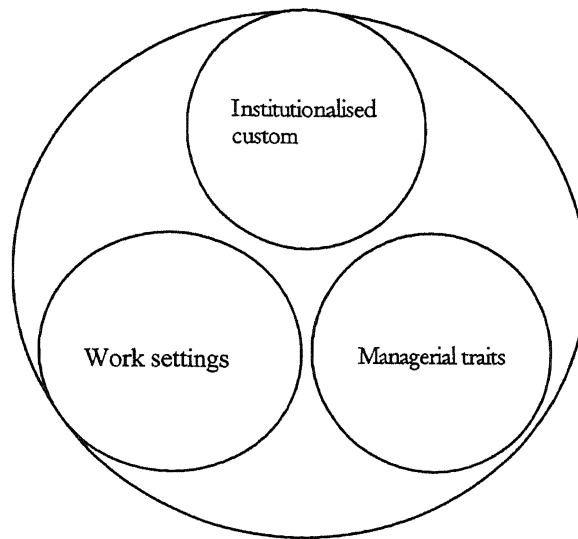


Figure: 3.1 Factors influencing Performance Effectiveness

Further, Yau and Sculli (1989) present that managerial traits need to be used with discretion, and be used as aids for the final decision. The late 20<sup>th</sup> century discern serious concerns in management development, especially in managerial skills, attributes, abilities etc. A combination of one or more of such skills found to grow as Competencies.

Thomson *et al* (1996) cite Boyatzis's definition for Competences as

‘those characteristics that are casually related to effective and or superior performance of a job’.

It means to say that possession of some characteristics precedes and leads to effective job performance. Bennis (1984) in his study of successful managers in both public and private sectors discovered four common traits or competencies in them:

Management of attention (Good managers hold a compelling vision that can mobilise action),



Management of meaning (To make their vision visible to others, good managers communicate effectively so that followers personally enrol in the vision),

Management of trust (Good managers are ideologically and/or behaviourally consistent over time and people can count on them), and

Management of self (Good managers know themselves and employ their strengths and skills effectively).

Williams (1996) (citing Burgoyne's model), states "situation specific competences are under-pinned by basic literacy. These fundamentals were perceived as being man made concepts..., vital for effective management that make them change over time". In addition, it quotes that "overarching meta-competences are utilized by managers to create and adapt the specific competences in any particular situation, resulting in effective managerial performance". It is also noted that more generic the competencies becomes, more hard to apply them to specialised areas.

Competency can be either person or occupation oriented. It can be either generic or specific. Generic competencies are those common to every individual for completing or achieving an action, and specific competencies are those only required when completing a very delicate or specified action. It is the determination of this research not to entangle or set work around the Competencies domain. Every effort will be made to maintain within this scope.

Katz (1974) identified three broad categories of skills necessary for an effective manager - the Technical, the Human, and the Conceptual skills. The 'Technical skills' are those skills necessary for dealing with subject specialties. The 'Human skills' refers to those skills linking to various aspects related to dealing with people. The 'Conceptual skills' are those abilities to clarify thoughts, the ability to view an enterprise as a whole, in the perspective of the industry and the nation. In this context, managerial qualities are defined as a component that is born in managers due to their possessing of knowledge (both learned and experienced), performance capabilities, and other personal attributes that infuse them with necessary vigour to deal with challenging situations.

Along these lines, the managerial qualities are conceptualised as an invigoration generated from the process of blending the factors: knowledge, experience etc., (considered earlier) which comes to reside in a senior manager. Managers suppose such factors as learnt and or developed. Possessing these factors propose provision of essential managerial qualities for a manager's performance and effectiveness. Burgoyne observes that the concept of Managerial Qualities link understanding of managerial learning and development process with understanding of managerial performance and effectiveness.

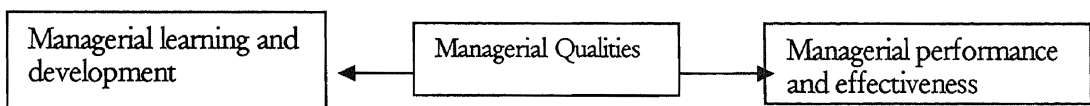


Figure: 3.2 Function of managerial qualities

According to many literatures, several research studies confirm that there is no one common set of variables that can be viewed in isolation. They suppose that there are some variables frequently seen among successful managers in given situations (Campel *et al*, Burgoyne *et al*). Campel *et al* present a good review about this subject in his book.

### 3.2.4 Classification and categorisation

In an applied science perspective, managerial qualities fall into two major sets; the universal set and the particularist set (Burgoyne) or, field dependent and field independent (Watkin 1962). 'Universalism' is where a set of qualities identified to give managerial effectiveness and success in all managerial situations. But, in real world this is not possible, and this raises the doubt. In real world every situation is different to one another. Every event orders different resources and decisions. Also, different manager faces different event. Different managers see an event differently. Therefore, it concludes that managerial qualities have to be strictly situation specific, attributed to that situation only, and have no bearing on an individual manager. This is what appears to be particularist concept. These events expect a manager to deal

with each situation in its own merits, and apply the appropriate qualities selectively to that situation. The other issue is the application of skills and traits, which is to the discretion of the manager involved. This state of affairs have had been empirically proved, and known as 'particularist' position. In such position, managers act on the situation encountered. They appear to possess certain qualities that help them to perform well in varieties of situations. It supposed here that these special qualities allow managers to pick up and develop other situation specific qualities as they become relevant. A manager's possessed special qualities intend to create a mind-set that aids taking appropriate situation specific actions. According to literatures, these identified qualities are often been found in most successful managers than in less successful managers.

Successful performance is a dependent on the outcome of actions accompanied by the individual perceptions and expectations. It's predicted through personal qualities of the manager, the performing work setting, and the conditions of the institution that prompting the manager with feedbacks, the measurement indicators. Managers, who want to become successful, need to develop the portfolio of professionalism necessary for such results, by taking up a kind of management development.

Burgoyne refers Bateson's three levels of learning:

1. basic facts and data;
2. the learning of new form of responsiveness and the kinds of responses appropriate of specific situation; and
3. the learning that makes an individual better at achieving the new and appropriate responsiveness.

The levels of learning speculate skills and characteristics that are contributing to achieve the managerial qualities. Certain qualities and learning levels are essential in picking-up and developing situation specific skills, the 'particularism' rather than the 'universalism'. The assumption here is that a manager who interact with the work environment to achieve a designated task, go through a set of rational processes. This

individual's responses may be acceptable to that process as long as it is premeditated, and attempts to develop specific forms of responses or the kind of responses appropriate for that specific situation. A manager who cannot come up to this level of function mostly fails in his accomplishment performance. The solution is to take sincere actions elevating one to the desired performance level, and to equip with the necessity. Burgoyne and Stuart suggested that, "the effectiveness of a manager is something to do with the appropriateness of the plans and purposes to each other and the situation". Burgoyne *et al* identified 11 attributes, found in most successful managers compared to less successful managers - across organisations. These eleven qualities (see Appendix D) have been arranged into three groups. Group A qualities: command of basic facts and the relevant professional knowledge may appears to be common in any managers who discharge a similar task. This may even appears under the concept of universalism. The Group B qualities apparently equip managers to execute the basic functions as per requirement. The final Group C, the meta-qualities is seen as the specific qualities observed on most successful managers compared to rather less successful managers, which assists to take situation specific action quickly. These are as follows:

Meta-qualities: -

- creativity,
- mental agility,
- balanced learning habits and skills and
- self-knowledge

According to Burgoyne, the 'meta-qualities' describes those aspects of the manager which makes him/her more or less good at acquiring the other quoted skills in group A and B, which supports to face the specific situation.

### 3.2.5. Meta-qualities

Human beings are irrational. Personal characteristic differences make two persons different. Irrationality has had disclosed in terms of individual differences in behaviour and associated functioning attitudes. Some of these characteristics are

genitive (born with) where some are glued to the individual by the environment (acquired through learning and experiences). Personality traits have packaged as a portfolio with which a human ascribed to it, as it makes two persons different. Individuals holding senior managerial jobs are to have significantly different characteristics, abilities and knowledge than in an average individual. These differences are categorized in the light of professionalism, competence and qualities.

Author found little literature specifically written on such qualities of senior managers, attributable to the current work. Most works published had orientation diversities. There are several documents talking on variety of generic qualities, and each document view those issues differently. It makes difficult to advocate one or the other work or even to cite in support of this work. It is assumed that the personal qualities, the realized net product of possessed experience, knowledge and the inherited traits all can be viewed as an endowment a senior manger possess in order to discharge his functions. This endowment easily promoted as the 'portfolio of professionalism'.

In contemporary business entities, senior managers pronounced to have abilities, skills and knowledge that are significantly different to an ordinary person of rudimentary level. These are again significantly different to an ordinary manager. The specific difference is what that makes a senior manager's performance different in different situations, associated with the power and authority endorsed to that function. Today's senior managers execute non traditional functions like networking, work design and organization, knowledge transfer, employee development, resource management etc. compared to traditional managers executing functions like personal management, delegation, command and control, distribution of work etc. Managerial qualities possessed by a manager give them necessary rise to managerial behaviour and performance.

The concept 'possession of meta-qualities enables managers to learn situation specific skills quickly' (Burgoyne 1976) - is a useful one, and it indicates that possession of these skills and qualities predict effectiveness in general managerial performance. The descriptions of meta-qualities components are as follows:

*Creativity:* Trying out newer ways of doing things on one's own or recognising new and good ideas from others and putting them to effective use.

*Mental agility:* Ability to think on one's feet and switch rapidly from one problem to another as demanded by situations.

*Balanced learning habits and skills:* An attitude of openness to various source of learning, and the ability to reflect on one's own experiences so as to formulate tentative theories and test them out by application; not being limited to any one conventional source of learning or adhering to one pet theory.

*Self-knowledge:* Awareness of one's own goals, values, beliefs, attitudes, perception and behavioural styles, and feelings. This is necessary for Self-control, which will facilitate emotional resilience as well as one's over all self-development.

It is observed that such meta-qualities are not necessarily being in an orderly format. These are qualities that can be developed and or improved in isolation, if that is the case. Thinking that development should always elevate all four qualities at once or even a development could reward the improvement to all four at once is untenable.

### **3.2.6 Management Development and the meta-qualities**

Possessed Meta-Qualities (detailed above) provide the endowment necessary to develop and apply situation specific skills by a manager. It fertilizes quick learning of all other qualities necessary to deal with specific situations. It is an essential nutrient that is providing the spontaneous positive and accurate response that earns performance success. It is correct to mention here, that managers believe such nutrients and associated catalyst can be added to their individual portfolios through variety of management developments (Mumford 1988), (Margerison 1991), (Burgoyne & Stuart 1977).

Senior managers who identify the necessity of performance enhancers embark on adding and reinforcing managerial meta-qualities to their own portfolios. They always attempt to choose a form of management development with which they are comfortable. The selection built around what a manager think is nutrient and what is

not. Biologically, during the consumption, there are possibilities for managers to discard certain aspects of the development as non-nutrient or to accept bad ones because they like it. Also, possibilities to guzzle some ill concepts together with the nutrient concepts consumed. It assumed that a manager's selection of management development events for development of qualities impeded by the work-settings and other common socio-economic factors. Stuart and Burgoyne 1977 performed a supportive research by studying some management development programmes to see how they contributed to meta-qualities. They found a few programmes failed to contribute adequately to some in comparison to other qualities. There is evidence (from this study) that education interventions weakly complement other qualities (in Group A and B) mentioned above (i.e. MBA does not educate basic theory though it demand it). These quality attributes virtually subsume various skills and competencies pronounced by other studies. They present useful variables in a study of senior managers across organisations.

### **3.2.7 Role of managerial qualities**

Burgoyne concluded that the managerial qualities contribute to managerial performance and serve as a goal for management learning. It stated there in that a manager, who possesses these meta-qualities, will become a resourceful manager. A resourceful manager is a person who is viewed as acting independently, able to take own decisions with available resources to realise better performance and, who could respond spontaneously to warranting situations. If taken a stock of what makes a good manager? Or are there any ingredients contribute to managerial effectiveness? Or what does it really means to some one when managerial effectiveness is questioned? Or will such qualities make a manager an intrapreneur? The answers could come from an understanding of what managers actually do or what are they expected to do? In other words, the understanding of the managerial role would help to identify the requisite portfolio of professionalism of a manager.

Apparently, lot of work has carried out in this area, looking at what managers do and what contribute them to do these activities. But Burgoyne (cite Argyris's 'Exposed theory and theory in use'), to argue what happens in real world is not what always

spoken and, during managerial process of transformation most activities are situational. In order to achieve certain goals a manager is powered with authority. This authority earns a status that contributes to variety of social relationships, recognitions and various interpersonal relationships. Such relationships encourage accessibility to information, and such information enables a manager decisive and develop strategies that eventually leads to some kind of power base. Efficiency of this power base is a dependent of what a manager is capable of.



### **3.3 LEARNING AND LEARNING STYLE PREFERENCES.**

#### **3.3.1 The meaning and nature of learning**

Learning is undertaken deliberately when individuals consciously learn and study. They commit themselves to assessments in order to gauge a level and depth of their understanding and skills. Such formal learning situations will test, grade and award qualifications on a basis whether the individual has reached an agreed and measurable standard. This is simmering a change via a structured and controlled process. It is seen more of a continuous and mechanised process happening under societal habituation instead of being a dynamic and or impulsive event of active fluid nature. Learning occurs at various levels and in many ways. It is tacit as a rich experience. In most occasions, feelings generated by the processes of learning are very powerful and intend to be pleasurable. During the learning process, a sense of achievement that often accompanies with completion of the process can be the emblematic confirmation to an augmentation to individual's self-worthiness and esteem.

Learning can also be an uncomfortable experience. In some processes, the content and or the process undertaken for learning may become inappropriate to a learner's life style or to the learning environment. The components ascribed to the learning process tend to become inapt or unique to learner's employment setting. The stress (caused by faulty learning) inflicted upon the learner forces the learner to moving in a direction that is not fit for the effectiveness of the learning undertaken, or else, towards a direction ill health to the employment benefits. Generally, a committed learner (seeking self-incentives) may compromise the employment to learning, or an employment-dependent learner (employment is for survival) will opt for continuity of employment at the expense of learning opportunity. There are ample evidences of persons trying to balance both employment and learning, where the result finally becomes fruitful over a longer time scale.

If learning resulting in development of resourceful and or competent workforce, the contribution made to an organisation's effectiveness is significant. Investment on a learning exercise has seen dissimilar reception, mainly in two areas: a cost and a necessity. Literature appearing in the early 20<sup>th</sup> century illustrated the learning related issues as costly business. The reasons lead to believe that the institutions focusing on learning deprived of securing benefits otherwise obtained by investment on procurement of required capacity and capability from elsewhere. Most investments were based on third party prescriptions. Institutions have had little knowledge of their own requirement on essential capacity and capability. Those embarked on learning also had little knowledge on what is ideal for them. On the other hand, institutions seeing learning as necessity ventured into developing what they felt best for them and committed their nominees. In some cases, nominees failed to stay on in employment after learning, emigrated to greener pasture. Some though attend the learning process for the shake of employment, in fact failed to learn for reasons best fits to individuals. There is evidence too of employer lead initiatives consumed as paid holidays by the nominees (author's observation during his professional practice 1997-1999). Literature during the late 20<sup>th</sup> century appears to read to imply that institutions aims to see expenses on learning as investments and not as cost any more. They apparently attempt to initiate modalities where nominees enrol themselves on learning programs (some time on joint development agreements), present themselves on modes of recognitions and contribute positively to the institutional and stake holders' expectations. This period gave birth to the concepts of self-managed learning, assessment centres etc.

Natural managerial learning is that it takes place through practice and reflection. Most of such occurrences take place when experience results or pave way for some deductions and conclusion. Some adapt a successful practice as routine where some tend to seek innovation. It is, in most case, complex and difficult for measurement, and in formal faith, to gauge for awards (Torrington and Hall 1998): i.e. learning from coaching (Boettinger 1975), mentoring (Hunt & Michael 1983) and peer-relationship (Kram *et al* 1985)

### 3.3.2 Theories of learning

Most available learning theories attempts to explain comprehensively how learning takes place but in different ways. There are varieties of definitions pronounced apparently in diverse context. Author draws a few that mostly fit for purpose of this research. Learning is a major tool in adapting to our environment. It has been defined in a many ways and the commonly acceptable definition is apparently based on Kimble 1961. Torrington and Hall (1991) suggest as “learning is a relatively permanent change in behaviour or in behavioural potentials, the resultants of experience, and cannot be attributed to reversible body or mental states such as those induced by illness, fatigue or tranquillisers”. Learning means change, a relatively permanent kind. Individuals may behave differently due to short-term factors inflicting changes in personality constituents. Discussions on learning involve many items including that of knowledge, skills, attitudes and social behaviour. G Cole (1990) cites it as, “a process by which people acquire knowledge and understanding, skills and values, and apply them to solve problems throughout their daily life”. The above definitions draw interest on the process that appears to marry with the current work, and its associated interactions involve both past and present influences of the learning. Most of these are grouped in to two categories: Cognitive and Behaviourist schools.

#### 3.3.2.1 Behaviourist theories

Schools of thoughts pronounced by Thorndike 1913, Watson 1930, Pavlov 1941, Skinner 1945 treat learning as “development of links between motivation and performance” (stimulus and response). It was attempting to demonstrate how links could be encouraged and established, the reinforcement. In human resource strategy, such reinforcements, the stimulus to a desired response, is accounted as rewards for performance. Further, understanding the features of the participants, a matching condition attached to ensure successful performance. Firstly, such modalities are possible only when the stipulated goals are easily measurable and quantifiable. In contrary, it is very difficult to attach rewards for a performance if not quantified. In management learning, either manager seeks learning in order to secure the conditions and rewards or else, the conditions of work commit the manager to a format of learning. In both, learning is associated with a form of reward. It also appreciated

here that the modalities of developing learning programme some times politically seen as rewards too. Mumford (1994) observes that encouragement to learning with rewards or qualification and recognition, is very much in common. Associating work setting to learning is hygienic in one sense too. Taking all of these, he views that individuals induced to learning by linking awareness of their performance and potential portfolio of professionalism.

### **3.3.2.2 Cognitive theories**

Mullins cites theories like that of Kohler, (seeking an end solution through problem solving), Tolamn, (mapping for later usage), Piaget, (the 4 ways of children's learning). These have rested in the understanding of how data is collected, sense making, deduction and deposition utilizing results, the learning and resulting qualification of learning. The cognitive theories also considered learning as a whole; the order of learning as parts in relation the whole to encourage learning. Within this category, Bandura 1963, Cagne 1965 and Carl Rodgers 1969 all considered the importance of social interaction and the intellectual appeal as the vehicles for learning. This domain includes processes like networking, role playing, participation and observation and the likes where the learner and the learning situation both come together in one location of choice, an inducement for learning. It also involves most of the profession based learning (e.g. medicine, engineering, accounting, marketing), usually continued in order to make use of it at a latter period. Most managers embark on their self-initiative as means to secure better working and standard of living. Further, managers attempt to develop networking across the peer levels within the organisation; with individuals who interact with organisations as well as with individuals of professional standards as a means to enhance their individual potentialities.

Mumford comments that “mainly most healthy learning come from experience of success rather than experience of failure”. In this context, it should not be discounted that there are no learning from the experience of failure. It is, from such experience, another form of healthy learning emerge – ‘not to make similar errors’. Further, once a learning objective is set, it clarifies the requirements and set standards expected out of the learning. This is sometimes assessed and awarded (qualifications), and

sometime left to the mercy of the learner. Only those managers who absorb the learning and store the effects, are able to apply those learning when necessary, and are the mostly benefited in modern times.

Burgoyne commented that having various schools of thought on learning and formats assist in learning different things differently. Mumford cites propositions that managers learn by looking at the experiences they have had and, much less frequently, learn by identifying in advance. Learning opportunities need to be turned into a more constructive manner. Mumford shows that there are four approaches to learning: (1) Intuitive; (2) Incidental; (3) Retrospective; and (4) Prospective.

### **3.3.3 Characteristics of Learning**

In support of this research the following characteristics were observed from the literature.

1. Behavioural changes that result from learning experiences can be quantified and presented in the form of learning curve.
2. Learning curve intends to depict the cumulative changes in behaviour taken place over the time of learning.
3. Behaviour could be defined using measurable indicators: error rate, completion time, performance rate etc.
4. Learning indicators based on behaviour tends to demonstrate individual differences in learning potentials.
5. Visual measurements may also show (if assessed appropriately) that process of learning is incremental, appears to flatten quickly when there is no motivation or challenge ahead.
6. Learning to be efficient, it need to be building around more than one dominant style of the useful delivery processes.
7. Learnt elements will be lost or replaced if these are not practiced frequently.
8. The human being will reject some or all learnt elements if its attributed values not accepted spontaneously. (Biological cycle of Nutrients)

### 3.3.4 Learning style

Learning style seen as the format adapted to process and apprehend the learning content. Claxton and Ralston refer to learning style as a consistent way of responding to, and using, stimuli in the context of learning (Hayes and Allinson 1996). De Billo (1990) defined Learning style as ‘the way people absorb and retain information’ (Hayes and Allinson 1993). It was cautiously accepted that the learning formats do vary because differences in a person’s possessed endowment, influencing the forms of organising and processing the collected information to make a sense out of it.

The empirical work on Learning styles have had originated by David Kolb who developed an elegant theory since 1960. He summarised all his work in his text, “Experiential Learning” in 1984. Kolb defines learning style as “generalised differences in learning orientations based on the degree to which people emphasize the four modes of learning process as measured by the learning style inventory”. In essence, he argued that, to learn deeply and generally, it is necessary to be able to:

- Attend to a clear and concrete experience,
- Be free enough in ourselves be able to observe and reflect on that experience,
- Be able to generalise and conceptualise on the reflected experience into an abstract,
- To be able to test the evolving sense, the theory and to practise the experience to learn how our experience shapes up.

Looking at the definitive information, learning style was a segment of cognitive styles. Cognitive style refers to individual differences in information processing. Cognitive style is a concept that is concerned with individual differences in the process of collecting, processing and the retention of information for future use. Cognitive style is interwoven with affective temperament and motivational structures as part of the total personality traits, which illuminate distinguish features. It is concerned with the process rather other the content of activity, and relates to how people think, solve problems, learn and relate to others. Camble *et al* in their work

had reviewed this topic well. Sadler-Smith *et al* (2000) viewed cognitive style as a factor that could inspire an individual's preferences.

The learning cycle and the learning styles are one of the best-established models in organisations psychology. In 1994, Hayes and Allinson offered a review at the British Academy of Management annual conference that raised questions about the strength of the effects predicted by learning style theory. A style to be effective or valid it must match the extent to which particular learning activities or learning styles provide the learners with the opportunity to process information consistently, within their expectation. This situation led to believe that the preferences must be the strengths. To this effect the author found literature talking on self-responsibility, self-direction, the new orthodoxy and also advocating the individual's ability to structure and self-learning (Sadler-Smith *et al* 2000).

#### **3.3.4.1 Kolb's Learning Cycle**

Factors affecting the learning are inevitably complex. Managers may use complex models to select their learning programme. Based on cognitive theories, and the accompanying psychological nature of the learning taken place, it had deduced as a cyclical process. This led to the proposition of Kolb's Learning Cycle (see Figure: 3.1).

He uses a set of questions – Learning Style Inventory- to assess individual learning preferences. The assessments were based on certain managerial actions that were seen as manoeuvrable for desired results. It was also found to be a controversial instrument. The controversy started due to the manoeuvrability of the possible behaviours found in the questionnaire as measurable actions. Kolb's work, Learning style Inventory was criticised due to the kind and nature of the instrument used. This criticism was, purely on the nature of the contents of instrument. The document contained a set of questions to elicit information on a person's behaviour, that appears to be arbitrary and biased in some sense; validity, unsatisfactory to differentiate and unreliable (Reynolds 1997).

Kolb concentrating on the role of individual learning argues that it was useful to combine the characteristics of learning (see Section 3.3.3) (usually regarded as passive), with the characteristics of problem solving (usually regarded as active). This combination eventually developed as his Learning cycle.

Applying his development to studying individual differences, Kolb demonstrated that individual does have a preferred way of learning or else individuals have more than one preference of learning at any given period with one dominant preference. Kolb pronounce that individuals can gauge their own learning style that indicates their strengths and weaknesses. Knowing one's own learning style helps an individual to select the most appropriate learning opportunity. The profound issues were like that of experience learning, trial-and-error or learning curve effects, action learning, understudying or role playing all are accounted. It endorses the important concept of endless learning.

It provides a useful thinking into the nature of learning as:

1. demonstrate the continuity for learning as endless process.
2. learners cannot remain passive but need to be active to test the learnt effects.
3. identifies the importance of acceptance and maintenance of the learning effect
4. it projects the problems of learning.

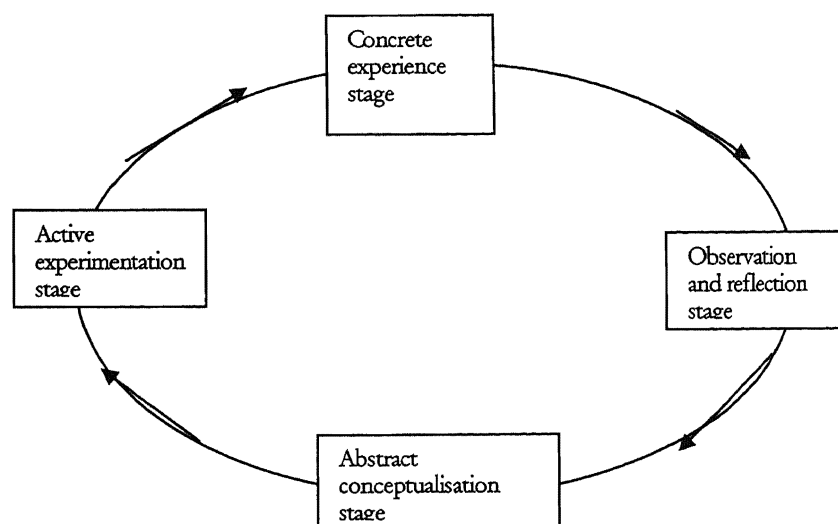


Figure: 3.3 Kolb's Learning Cycle (Source: Training Interventions – Reid et. al. IPM)



Since then researchers claim, that understanding and identifying a person's learning styles will enhance the effectiveness of learning. Further studies have explored personality differences and learning. Some studies (Myers-Briggs Type Indicators) even use individual learning styles as indicators to reveal differences in personality types. Kolb maintained that learners must become deeply competent at every stage. Kolb's position was that it is necessary to be deeply competent in each of the four stages in what he calls his learning cycle.

#### **3.3.4.2 Honey & Mumford Model**

Honey and Mumford 1986 model was born as a development beyond the Kolb's learning style inventory. The model offered an alternative framework to assess an individual's learning approach based on the same fundamentals, but the normative position seems to be different from that of Kolb. They used learning style questionnaire (LSQ). LSQ was widely accepted with less controversy compared to that of Kolb. In this LSQ, 80 statements (observable human behaviours) were used and the respondents required expressing their broad agreement or disagreement to these statements. It was also seen as a second opinion to the observed behaviour of a person or persons, with same effect that becomes undeniable. The 80 statements grouped (4 groups of 20) in a selective manner, so that all constructs of behaviours are selectively scored. Total group agreements were then analysed. They have attempted to segregate decisions from same or similar environment to further study behavioural patterns, and to norm the behaviours. Honey and Mumford declared a set of general norms based on their substantial research, which assists to compare and to understand a respondent's scores. This helps the respondents to select their future developments freely, to improve their noticed weaknesses, or even to identify what areas of their preferences are stronger to another.

In the Honey and Mumford work, it was noticed that a person's learning style might be a combination of more than one style. Some are level in all four styles (non-numerical aspect), where some have preferences that are too strong and some are reasonably weak of the styles seen. It was observed from Honey and Mumford study

that all four styles do take a position interconnected to each other. There is no provision to re arrange these four variables in any other order, as each style leads to another.

Learning preferences were defined as an individual’s disposition towards one particular mode of learning. Honey and Mumford approach was accepted with less controversy against that of the Kolb. This LSQ instrument became very popular both in social science survey and, management development and training domain. Both Allinson and Hays, Reynold concluded after their review on learning style inventory (Kolb’s) and Learning style questionnaire (LSQ), that LSQ is more preferable to LSI in measuring the learning style preferences (LSP) of individuals. Sadler-Smith on the other hand used LSQ on some business studies students and concluded that its applicability in different places is somewhat questionable, nevertheless accepted that its value as an assessment tool. Please see Appendix E for brief details on learning styles and the applied general norms that is adapted in this study is presented below:

	Band A	Band B	Band C	Band D	Band E	Std. Dev
Activist	13-20	11-12	7-10 (mean 9.3)	4-6	0-3	2.9
Reflector	18-20	15-17	12-14 (mean 13.6)	9-11	0-8	3.1
Theorist	16-20	14-15	11-13 (mean 12.5)	8-10	0-7	3.2
Pragmatist	17-20	15-16	12-14 (mean 13.7)	9-11	0-8	2.9

Figure: 3.4 General Norms of Learning Style Preferences

Honey & Mumford used the term Learning style as a description of the attitudes and behaviours that determine a person’s way of learning. They found learning as a fundamental process, people will take it for granted, assuming they are comfortable with what need to be learnt and how. Variety of learning styles has bearings on the development of a person. It is governed by the strength and weakness that evolve from a person’s endowment. It was found that the concept of learning style contributing to the quality of management education provided for managers.

Mumford in his work argues that a knowledge of the managers' learning style preferences provides avenues to offer valuable management development, rather than indulging managers into some management development activities that might turn out to be unproductive. Mumford suggests that it is permissible by strengthening those styles one already has, and to seek out learning opportunities that nourish these styles. This is where it can be seen as to how or why a person chooses a particular learning process to develop. Alternatively, a response to why have different kinds of learning processes evolved in the contemporary management development domain will also lead to same belief.

### **3.3.5 Issues concerning the study**

Burgoyne 1976 beheld that people are adapting different learning processes, which are quite different from the learning style aspect. He found out that people use different forms of learning processes when attempting to secure learning goals. Considering the information, learning process is a collection of activities and tasks leading to an understanding, that was attempted on a rotational basis and, some time knitted closely.

Confusion is another factor that need not be ignored. Confusion clouds over learning, learning styles, and the learning style preferences, because how individuals differently construct these terms. For example, Kolb present four approaches in his learning cycle. Honey and Mumford present four different ways that are somewhat different to Kolb's format. Among available literature, (Reynolds 1997, Sadler-Smith 1996), Reichinan and Grasha presented three different types and Riding and Sadler-Smith sighted another three versions of it. The literature search so far failed to illustrate evidence to count or discount any of these versions as good as Honey and Mumford's learning style preferences. Learning is about accessing the necessary information to make a 'sense of meaning' out of it. In this context, learning style preferences are a person's selected format(s) of learning. Accessibility depends on the availability of a situation that concedes plausibility. People are always not aware of their styles of learning, but they are comfortable with their ability to learn more from one activity and less from another.

In essence, Honey and Mumford present that individual learning approaches differ in various means: from old days and to post modern days. Burgoyne 1976 supported this context through his work and listed seven formats of learning processes. It is possible to see a person's learning approach keep changing along the learning process undertaken, as well as a particular format be repeated over a period of time to support the required learning. (i.e. a person who selects to attend a classroom learning due to strong reflective style may later become serious activist based on his learning. This might help to select an action learning exercise at the next occasion, and later to return once again for another classroom exercise). In a sense, it was a 'continuous process of development', that intends to evolve over a period, and work within four learning styles alternatively. These learning processes always vary according to a person's characteristics, the surrounding situation and the learning environment. A person's characteristic varies relatively to the knowledge possessed, and the contribution it had made to shape the perception and mindset. Therefore, it supposed that a learning capacity remains dependent of the possessed abilities, knowledge and the potential endowment (explained earlier). The selection format of a learning process, the learning style also depends on these endowments.

Literature review suggests that the identification of the learning style preference is very much important to the provision of human resource development. Sadler-Smith in his publication presented that the learning style as an individual profiling, and its relationship with management development. Both, Kolb and Honey and Mumford discussed this essence when discussing about the use of learning style in management development, especially in a psychological context. Honey and Mumford work has led contemporary management development programmes being developed and set around the learning styles, without predisposition to who should participate. These works also documented that one method of learning approach is not suitable to all personalities, considering the perspective that individual learning styles do differ.

Behaviourists believe that the possessed endowment make two people different in terms of characteristics and in behaviour. To make sense of observable differences between individuals, it is understandable that so much explanation does celebrate 'individuality'. This is the best way to acknowledge what is distinctive in an

individual. Honey and Mumford measure the individual learning style preferences. Both the learning and learning styles are influenced by the learning situation and or environment (Caple and Martin 1996). Therefore, it is correct to assume that the learning style preferences do change over time for more than one reason. Learning styles explanations get to a stage beyond how individual attempts to learn, and attempts to plot a personal profile of an individual. Having measured the learning style preferences, an individual is classified with the dominant style among the four learning style groups. Sadler-Smith 1996 supported this and, in his publication citing Presland's acknowledgement to it: 'that learning style questionnaire is one of the widely accepted and valuable tool to measure the learning style preferences of an individual'.

The learning capacity of a person has its bearings on the managerial qualities, as it springs out of the possessed endowment. Learning is neither an automated nor a mechanistic process. It has a spiral effect, a continuous process, upwards for betterment or downwards for erosion of knowledge, and there is evidence of both approaches in practice (e.g. Up-skill, De-skill). Qualification affiliated robust learning shifts participants towards automated or mechanistic processes. It is the process and not the content that become mechanised in formal learning process, which affix a robust mechanism. What two people learn may be the same, but how they learn can be different. Previous studies available in the public domain inform that learning involves change, and change affects the human behaviour and vice versa. It happens on a fixed nature and a person's behaviour varies in relations to the possessed endowment (in the context of management development). Considering learning as a strategy, it can be emergent or planned (Megginson 1996), holistic or serialist (Pask: Reynolds 1997). It rests on the results of possessed endowment. An individual's learning strategy based on one's initiative towards learning, is seen as planned learning. Alternatively, emergent learning is where learning taking place subjective to an event or incident. In this context it has some bearing on the cognitive style concepts. Similar to learning that is taking place out of trial and error or action learning or even the effect of learning curve. It aligns with the consistent variation of learning process, which becomes legible due to variation in possessed qualities, the meta-qualities (Burgoyne and Stuart 1976). The consistent individual differences in

the ways of collection, organising and processing of information supports this argument. It can be conceptualised as stable, determining a person's modes of perceiving, remembering, thinking and problem solving activities. A horizon now becomes visible; the possessed managerial qualities effect changes in the process of learning based on the governing learning styles and, the varying learning processes effect changes in the behaviour which is supposed be governed by the managerial qualities. Appreciating others like Cagne 1970, (on learning types and implications to learning processes) recognised the various types of learning taking place, possibly in a learning process.

A person's learning style influences his/her selection of management development. It is a fact that managers assume all necessary skills and qualities can be learnt, and also assume what comfortable mode to adapt. Learning, a fundamental process, many manager take it that they know their process of learning. Most managers select their management development according to their interest, access and endowment. Their learning style propels the likely management development, its contents and process. They are driven by the qualities possessed, and it is supposed that their dominant learning style and the quality both attempt to determine the development.

The following chapter deals with the methods and design adapted for this study with the support of relevant theories fielded by the academics. It attempts to summarise the theories aiding the development and explains the design features.

## CHAPTER 4

### RESEARCH METHODS AND DESIGN STRUCTURE

#### 4.1 The term explained:

The term research has been defined as a systematically organized, data centred, critical inquiry into a specific problem undertaken with the aim of finding an answer to it (May 1997, Sekeran 1992, Burns 1994). Research is a systematic process of rationalised activities to investigate a specific phenomenon that needs a resolution (O'Donnel 1986). Social scientists are interested in finding out both the diversity of constructs made by the subjects ascribed to an environmental aspect, and the effects of the environment upon the society. Psychologists are interested in finding out the causes, cause drivers and/or the initiators. Along these contexts, a management research falls under the social research umbrella (as its main subjects are human beings).

#### 4.2 Types of Research:

A research is classified differently in terms of its usage, purpose or the kind of information it implores, and embedded on the process it takes to complete the selected task or the methodologies used in achieving it. A research method has distinctive characteristics (controllability, rigorousness, systematic, validity, verifiability, criticality and originality) to qualify as efficient, and could assume one of the three perspectives: Application, Objectivity and Information requirement. It takes shapes as 'pure' and 'applied' research contributing new knowledge, or resolution, or knowledge-led solutions, or solution-led knowledge. In academic world, a pure research generates new knowledge and understanding of a phenomenon likely to exist, and to build theories around it using the results. In commercial arena, focus is to resolve or else to eradicate a given problem by determining the causes, and later resolving that problem.

### 4.3 Today's Research Projects

Today, 'pure' research is to establish facts prior to proving the original notion (called hypothesis that is measurable and tested) either true or false. This proposition brews as a theory (if proven good or vice a versa). An 'applied' research is concerned with the development, examination, verification and refinement of research methods, procedures, techniques, and the tools that form the body of research. The objective characterises a research into one of descriptive, explanatory, exploratory or correlation type. Tesch 1992, Miles and Huberman 1994, Kumar 1999 all have spoken about these in detail in their texts.

### 4.4 Formats of common research methods:

The positivist emphasizes the role of discrete and distinct steps (construction and testing a hypothesis - the only way of explaining the casual effects) in the process of developing knowledge as the best way of discovering them. A scientific knowledge validated by such a test is only the valid form of knowledge, called positivism (Saunders *et al* 2000, Jankowicz 2000). The other essence, the falsification - assists in rejecting a hypothesis to pronounce otherwise. The reasoning is the deductions from the data processed, and works around a concept of "the premise is true then the deductions are true too". The contrary approach to this is induction, in which "individual facts are assembled in clusters to create manageable sets of generalizations" which act as theories.

### 4.5 Qualitative research contrasted with Quantitative research.

Popular developments are seen using qualitative, quantitative and the quasi-scientific approaches. The positivist paradigm supports both qualitative and quantitative research, and ensure adopting certain values regarding the prejudice, objectivity, and the drawn deduction. Attaching values to data gathering, processing, analysis and interpretation enables a research process valid. Both methods are systematic approaches to set up an investigation, to analyse the data collected, and to compare against arbitrary hypothesis or factual theory. The ultimate aim of a quantitative method is to poise on the nature of deduction and the results - explaining through an



analysis for casual relationships, and explanations by vigorous norms. Qualitative researchers are interested in answering those questions, and explain the reasoning? When using the data, a quantitative researcher might seek the magnitude of differences quantitatively, where a qualitative researcher might seek understanding of the features, and the rationale for it. It could be argued that a quantitative research is more precise with responses along researcher's perception, where a qualitative research represents reflection of the situation than the numerical perception. Quantitative research attempts to simplify issue for which a clarification is not appropriate. Qualitative research works around research centred arbitrary reasoning. In quantitative research, individualism is eradicated through the process. In a qualitative research, it is sought to minimize the impact of perceived interventions, remains interested in what happens without having complete understanding of those actions.

#### **4.6 The Rationale behind the study and instruments**

The aim of this research is to establish the relationship between two primary variables: 'meta-qualities' and the 'learning style preferences' of a senior manager. Each variable consists of a set of four sub-variables, and relationships are sought between these. It is imperative to understand a manager's work environment, to learn those governing issues prior to reaching conclusions. Accustomed work setting is expected to provide a condition that has influence on a manager unruffled of management development. This profile is dealt by one of the instruments that deliberately seek information on the conditions governing a unit of analysis. The second issue is the manager profile of possessed endowments: managerial qualities and learning style preferences. The published questionnaires (meta-quality model and learning style preferences model) are used to assess. The first instrument is scoring the responses quantitatively, to give a feeling of the governing issues, and the other sets of questionnaire provide a meaning quantitatively, deducting from the responses using appropriate norms published. More specifically, the questionnaires locate the responses on a pre-defined position.

In principle, the following concepts govern the creation of this research:

- the investigated relationship is intrinsic and inseparable from the subjects who are human being;
- issues studied are observable actions created by the variables, but it will only be disclosed by the respondents voluntarily, and not an issue in it self;
- subject's agreement or disagreement is the fundamental and voluntary;
- it is essential to understand the conditions of the work setting in which such agreements or disagreements are reached;
- in investigation, the subject's honest and truthful response is vital for the accurate conclusion of the research.

#### **4.7 Research design**

A research design is an overall strategic plan, a tyrannical mechanism of processes of research to determination. It will effectively produce the required knowledge and resolutions only from the available resources, involving a series of rational choices of decision. Design errors occur when design problems are neglected, and due to working without seeking the required information (incrementalism). Another key problem to look out for is the wrong choice of design that could lead to Type 1 and Type 2 error problems.

This piece of research is a correlation research, seeking a relationship between two sets of variables. There are no views on which group to be classified as the independent and which is to be the dependent. The current purpose leads to suppose that meta-qualities instruct the learning Styles preferences. It is assumed that an above averaged human actions are driven by the perceived value and knowledge gained from experience, as such, the managers intend to select their learning styles at the impetus of the meta-qualities. It is so conceived as to avoid unnecessary research problems, and to seek best productivity through adapting published instruments and popular analysis formats.

Samples selected in a calculated manner to represent the targeted population, and this method is attempted to generalise the result to the population. It must be observed that those responses anticipated are totally voluntary, and the volume of data sets up the validity of the results. Every effort is taken to eliminate factors that otherwise flout the deductions and generalizations. At the face of this research, it transpires as a correlation study, demanding data to ascertain relationships and statistical calculations to confirm these relationships.

#### **4.7.1 Research Sample**

The research was carried out in the National Health Services Trust organisation. Initial communications lead to understanding that it is possible to access the managers suitable for the study. This institution was selected because of its popular characteristics, the ever-changing operational environment. The Health Services in the United Kingdom was divided into nine Trust Regions. All of the nine regions approximately contain around three thousand or more senior managers of all kind at the very senior level. Communications with all the nine trust regions (with the help of the Management Development unit) assisted in collecting Staff Directory from three regions. Others regions failed to provide any form of literature in this connection.

All senior managers at these three regions became an accidental sample for the study. Therefore, three NHS Trust regions were selected and target addressees were carefully planned under the convention of “senior managers with board level responsibilities, but strictly without any clinical attachments”. This accessibility was only possible with the availability of the staff directory, which clearly identified the addressees by name, position and responsibility. All managers were cautiously hand picked. Therefore, the problem of ‘wrong kind of respondents contaminating the results was assumed prevented. There were 900 managers identified and to be post surveyed with questionnaires addressed to them personally. This approach will bring back all non-deliverable letters by the postal services.

The survey instrument carried a personally addressed covering letter explaining the purpose of this research and what each respondent needs to do. A ten percent response rate was anticipated at this stage, taking into consideration of the nature of

the sample. There were fifty-seven responses received, of which, five were discounted due to incomplete responses. It was found adequate to have 15.7% response rate. Since the kind of research is that: postal survey and voluntary responses, the selection of sample becomes apparently in accord with academic theories. It is also noted, by the nature of the responses received represents the population and as such, it could be categorized as convenience sample (Ghauri et al 1995)

#### 4.7.2 The Approach

It was definitive that the research is not to incorporate in the investigation any of institutional aspects and issues attributable to NHS. It will refrain from commenting on any of those lines that could have direct impact on NHS too.

The research aims to understand the relationship plausible between managerial meta-qualities and the corresponding learning style preferences. In addition, certain observations on the work environment become necessary. The outcomes, where appropriate, need to be either supported or justified in the process of constructing generalization. Part one of the instrument seeks to cater to this objective. In support of this, an element of 'Analytical and Predictive' aspect is incorporated in to this design. Parts two and three of the instrument attempts to extract a raw score from the sample. These raw scores will be processed to normalise the data distribution, and also standardised to select the high and low order segments of the sample. In the approach to understand the relationship, a correlation study was adapted. In doing so it is necessary to gather data in a format that supports this objective. Data must satisfy the quantitative attributes to develop or transform into statistical results. In this connection, the Qualities model (Burgoyne et al 1977) and Learning Style Preferences model (Honey and Mumford 1988) was adapted. Qualities model gives results in numeric formats under a governing concept. There is a message between the result in numeric and the theory of the model. This model has comprehensive information for all eleven elements. The author extracted the segment that adequately caters to fit for the research: the section with only four meta-quality aspects. Originally Burgoyne used a numeric coding format. Modification was instituted under Burgoyne's personal recommendation when consulted by the author (in

October 1996). This modification will be clearly explained later. It is in the line of the original format but make the life of the respondents with easy flow, and also, stands fit to the original concept of the meta-quality philosophy. On the other instrument, the learning style questionnaire, the originality of the model and its application features were strictly maintained. All the way through, all formalities were completed as stated by Honey and Mumford. The results of it are expressed in numeric format, which assist to transform into statistical data. This new research results are to be compared against the original philosophy.

#### **4.7.3 Unit of analysis**

A target audience of nine hundred managers were administrated with survey instruments. These managers were holding board level responsibilities excluding any form of clinical specialist involvement. Through the available staff directory, these units can be individually accessed and be measured. All these units do have the same characteristics and functionality in the same environment. The only dissimilarity found is that all nine hundred managers do not work under one roof, but all of them are working under the same umbrella called NHS Trust. Therefore, every respondent is defined as a unit of analysis that provides a record of data for analysis. Each of the responses becomes a natural unit for analysis. Collection of all fifty-two data records forms the dataset that becomes source for this research.

#### **4.7.4 Levels of measurement and validity**

In a research, there is often a distinction on the levels of measurement used and its contribution to an effective study. Literature search documented that the levels of measurements are hierarchical, and the high order measurements do include the low order ones below it (Malim and Birch 1997). There are several ways of measuring the research observations, and the common ones are nominal data, ordinal data, interval data and Ratio data. It is observed that the scales of measurement can be converted downwards, but in this process some information will be lost. If the data is categorized in order to generalise the occurrence of data or event, here too some information will be lost.

The current research data consists of both nominal and ordinal score arising out of its component instruments. The significance here is the rationalization of data, which is purely arbitrary. In this research study, there is no requirement to influence any of the main or sub variables to understand its composure on the respondents. Part 1 of the questionnaire simply counts for classifications and or use simple scores in order to group the responses appropriately. This is nominal. Part 2 of the questionnaire uses nominal data to categorise the responses so that they could be counted for deductions. Part 3 of the questionnaire, the learning style uses the nominal data to account the agreements and disagreements and to conclude the overall score. The ordinal data is the basis for the determining the classification of responses, e.g. strongly agree and agree.

#### **4.7.5 Descriptive study**

This research takes a descriptive approach ascertain, and to describe the characteristics of the population studied within the context. It is to describe relevant aspects of the phenomenon examined. This is useful when a problem is well understood and structured. The major issues involved here are well researched and documented in it's own merits. This research is an extension to existing work done so far, by looking at the application of those variables, its implication etc., in one sense. Using suitable measuring instruments, it attempts to portray characteristics of the two main variables: meta-qualities and learning style preferences. In this context it is imperative to develop a single score combining all four sub-variables - GLOBAL Score. This single Global score (of each major variables) will be used in the process. Computer software, MS Excel is used illustrate the descriptive results, combining all associated variables.

#### 4.7.5.1 Hypothesis testing

Important test hypothesis are examined in order to achieve the research objectives. Most vital test hypothesis are listed below:

The observed learning style preferences are valid as per its standard norms,

There is no relationship between the meta-qualities variables and learning styles preferences; and alternatively,

2a. the degree of relationship observed is significant;

2b. the degree of relationship observed is significant than zero.

No relationship could be established between the Global meta-quality profile and the Global learning style profile.

Relationship concept could be used to construct a Balanced Learner Profile

Profile of one variable could be used to measure the profile of the second variable. Alternatively it may be difficult to practice.

It is customised that all tests are carried out at 5% accuracy ( $\alpha=0.05$ ) at two-tail. In doing so, all necessary data will be transformed into a normal distribution at stages. Most critical values are based on the published tables at a degree of freedom suitable for fifty-two data sets.

#### 4.7.5.2 Correlation study

Correlational research design is a design other than a true experiment. It statistically analyse using correlation coefficient. Correlation coefficient is a statistics used to measure the strength of the plausible relationship between two sets of variables, and its directional linearity. The 'r' coefficient assists to detect measurement without influencing the behaviours of the variables, and also assist to predict the probable value of one variable knowing the value of another. Correlation may occur due to influence of one on another or else by an influence of a third element on both of the elements studied or even it can be merely by chance in this occasion. It does not

imply cause, therefore it is difficult to know whether the chosen two variables are related by cause and effect or not. Further the relationship can either be linear or non-linear or curvilinear. This kind of study is chosen to understand the relationship possible between the variables.

#### 4.7.6. Exploratory study

An exploratory study is emerging from the plausibility of relationship between meta-quality and the learning style preference using the dataset. It must be noted that there has been no previous work done in this terrain to identify any substantial relationships between the variables. Current work therefore explores new lines of original research. Evidence of new information on associations or relationships lead to evaluate the dataset to either dissent or defend certain concepts presented.

The fundamental scope of this exploratory study is to

- field brand new contribution on the relationship between four meta-quality variables and four learning style preferences.
- it will also consider the concept of the balanced learner profile (using the learning style preferences and or meta-quality profiles) and attempt to field knowledge towards resolutions.

In support of this, the data will be processed in different ways, in stages. Both the vital variables having four sub variables, these will be transformed into a unique profile and a Global Score will be extracted. This becomes feasible through Z-scores, Standard deviation and standardisation. Standard deviations will be ranked to obtain an array, which could assist to locate an orderly deviation and to explore relative combinations on the other profile or else, in the future, to locate a measurement in relation to others.

The next chapter clearly explains the natures and features of the survey instruments used to solicit data by way of responses.



## CHAPTER 5

### ASSESSMENT INSTRUMENTS

In this research the following three instruments were used to collecting the data.

1. A questionnaire to extract information related individual constructs, applicable to the research aims
2. Qualities Model of Burgoyne, Pedler and Boydel 1988 (self-administered questionnaire)
3. Learning Style Questionnaire of Honey and Mumford (1988)

#### 5.1 Questionnaire:

Author created a questionnaire to extract necessary data directly credit to the research from the sample population. The ultimate purpose of this instrument is to solicit knowledge of the manager's work place. It contains twenty questions, see appendix F. There are two purposes of this instrument:

to extract necessary data which could standardized every unit of analysis, units will have the benefit of answering the same questions at all time, and

to proof the relativity of the answers provided by the units on certain question.

The document contains specific question aiming at subject's specific responses, the process and preferences to management development, the personal constructs and likely cause and effect of management development. At the time of survey, subjects were briefed on the nature of the instrument, seeking their personal constructs and advising to disassociate its use to the subject's work setting. Effort taken when designing the questions, to avoid issues associated to their organisation that is outside the subject's control. Some questions were open ended where some had prescribed choices appropriate to the research objectives. Questions intended to draw data on

other supportive matters that could assist in the process for clear deduction upon data processing. It has questions linked to subject's knowledge on matters concerning the areas: the management development, managerial qualities and self-commitment to development. It maintained the purpose of the research not only to seek the primary objective but also to seek information that might assist to contribute to the ongoing management development work. In this connection, a few specific questions used to understand the subject's wish, and what is more attractive in pursuing a management development. The widely spoken self-commitment to development is also assessed in this instrument, as it was the best prescribed motivation for a senior manager. Certain questions were specifically selected to test and understand the perceived knowledge of the subjects on the managerial qualities and the learning styles. One question checked the subject's construct on the future of the job. The design incorporated the concepts of content analysis to make meaning of the subject's responses. Some responses were classified and coded to standardise the responses. Most questions were categorised numerically.

## **5.2. Managerial Qualities Model:**

The managerial qualities model was first published in the text - *A Managers guide to self-development* (Burgoyne *et al* 1988). This instrument was manufactured from the works of Burgoyne *et al* on the research carried during 1976-1977. This concept was explained in Chapter 2 and 3 in detail. It is a structured instrument containing a set of observable behaviours, as statements to which participants could cast their agreement or disagreement. The original instrument has 110 questions, grouped into 11 quality groups (10 statements in a group). In their work, Burgoyne *et al* use this model to help an individual to map one's own management development requirements using the possessed managerial qualities, and to convert it as a learning goal. Taking this concept on board, the author attempts to use this instrument in the current research with Burgoyne's permission (October 1996). Theory shows that a high score reflects one's low order quality profile and, a lower score depicts a high order quality profile. It also exposes a possible situation where an individual being pretentious about the possessed qualities to be very high though it may be low in real time. This is a phenomenon attached to the nature of the statements that provides some

understanding of managerial behaviour. This instrument helps an individual to identify those qualities that are strong compared to others that are the weak. It is being used to map an individual's potential of possessed qualities. In the instrument each statement meant to describe a managerial behaviour.

e.g.: Q1. I find I don't know enough about what's going on around me.

Each respondent should indicate whether there is an agreement or disagreement to each statement by marking a code. Each statement should draw a response coded as either 'a' or 'b' or 'c' or even 'd'. Burgoyne *et al* provided descriptions for each coded responses. All responses and associated descriptions were listed in the Figure 5.1.

- Mark (a) if you think that the statement is definitely not true of you; you strongly disagree with the statement; you never behave or feel the way indicated by the statement.
- Mark (b) if you think that the statement is sometimes true of you; you partly agree with the statement; you sometimes behave or feel the way indicated by the statement.
- Mark (c) if you think that the statement is generally true of you; you definitely agree with the statement; you quite often behave or feel the way indicated by the statement
- Mark (d) if you think that the statement is always, or very nearly always, true of you; you strongly agree with the statement; you usually or always behave or feel the way indicated by the statement.

Figure: 5.1 Burgoyne's codes

If the respondent believes as stated in this code description, then s/he is expected to respond by marking the respective code for this statement. Like wise, all statements are to draw any one of the four codes, a' b, c, or d. Each response code is assigned to a numeric value to facilitate a score for each group. Burgoyne provides a scoring system: a= 2 points, b= 1 point, c=2 points and d=3 points. To score, it is to add up the total number of points awarded in each group (total for 10 responses per each group). The possible minimum score can be 10 per category and the maximum score could be 30. In his score system the code "a" is assigned with 2 points and to this fact Burgoyne in his publication states as, "in theory 'a' should incur no points – as it implies no fault or even perfection – it does in fact score 2 points. The reason being

that if you really do come up to the standard 'a', you don't need this form of assessment; and if you don't, then you're blind to your faults by putting down the response coded as 'a'." In an earlier study (Arul 1989), this instrument was used, using the recommended scoring method for the purposes of self-analysis, where every 'a' was awarded a score of 2, every 'b' a score of 1, 'c' a score of 2 and 'd' a score of 3. For the purposes of the Arul's analysis, however, a modified method of scoring was adjudged more appropriate: The responses were scored by assigning 4 points for every "a", 3 points for "b", 2 points for "c" and 1 point for "d". In this study, the maximum possible score for any group would be 40, indicating high perceived presence of the attribute in the respondent, and the minimum score will be 10 meaning a very low perceived presence for that attribute. Arul found comfortable to analyse by turning the score into a descending format. Noticed that Arul gave a high value point to which Burgoyne *et al* provided a low value point.

The author met Burgoyne in 1996, to confer on matters related to the using of Qualities model in the current research. During the meeting, Burgoyne suggested to adapt a liner and ascending format of numeric value to the codes. Burgoyne and his team; Pedler and Boydel also extended their full support to the author, in using the model as a measurement instrument, and in the attempt to establish a bridge between variables. Dr. Stuart when consulted also extended his cooperation in this connection. In order to satisfy the aims of the present research, based on expertise provided by Burgoyne, the author set a new scoring principle in a liner manner. Every effort was made to preserve the originality of the concept: i.e. lower the score reflecting the low need of development requirement, and the high score attained draws high need for development, as prescribed. Considering these terms of references, and the specific issue of the possibility of some one marking 'a' for unknown or undecided facts, the author introduced an additional code 'e'. This is to simplify the complexity of the original code "a". Separating "a" and "e" from original setting 'a' (that originally incorporates both responses) introduced with slightly changed code patterns. The new coding comprised the codes 'a', 'b', 'c', 'd' and 'e'. The new code 'e' was took care of those unknown facts separately to existing codes of the Burgoyne's model. It is also believed that this new code will eradicate any confusion for the potential

respondents as well as ensure an option for unknown responses. The new answer scheme is illustrated in Figure 5.2. with appropriate code and assigned value to it.

Possible responses	Code	Numeric value
Definitely not true of you; you strongly disagree with the statement; you never behave or feel the way	A	1
Sometimes true of you; you partly agree with the statement; you sometimes behave or feel the way	B	2
Is generally true of you; you definitely agree with the statement; you quite often behave or feel the way	C	3
Always, or very nearly always, true of you; you strongly agree with the statement; you usually or always behave or feel the way	D	4
<u>Neither true nor untrue of you; you are unable decide either way with the statement; your behaviour do not fit any way</u>	E	5

Figure: 5.2 Answer Scheme (amended version for this study)

An appropriate numeric value to support the theory was then adapted. Every ‘a’ was given 1 point where every ‘e’ was provided with 5 points. This system is based on Likert’s scale. The difference is that in the Likert’s scale the unknown or undecided response takes the middle place with a score of 3, which at the end will be ignored. Where as in this study, that kind of response is placed on one end of the scale with a high value assigned to it. This is to maintain the governing theory of the instrument, to maintain the coherency of the concept studied. This was operationalised to contain the core concept of the instrument and its purpose. Further it is also expected to have eased the tension otherwise respondents might have experienced due to the lack of facility to indicate their respond to a statement not agreeing to mark “a”.

It is a common issue in research to please the respondents however possible to increase the response rate. More the complication attached or strenuous the document is, less the response rate realised. Also, it is important to ensure all questions are properly answered without any clouds of doubt to the responses.

The ultimate aim of this research is to explore the casual relationship between managerial meta-qualities and the learning style preferences. Therefore, the author

only selected those forty specific statements that intend measure the four meta-quality variables from the whole one hundred and ten statements of eleven qualities. These forty statements were grouped according to the original theory to develop the specific instrument that is used in the survey for this research sample. (see Appendix F).

**5.2.1 Analysis:**

A computer model was developed using Microsoft Access to process the responses. This model is culminated to account the appropriate scores assigned to each response that each subject mark from the codes. The computer model calculates the appropriate numeric value attributable to each code, and to provide an aggregated single score for each group of qualities for each unit of analysis. An example of raw score for a unit of analysis is given below in Figure 5.3

Qualities	Raw Score
Creativity	20
Mental agility	16
Balanced Learning Habits	32
Self Knowledge	11

Figure: 5.3 Illustration of Raw Score – Unit of Analysis

The raw scores obtained through primary survey will further undergo various statistical processes. This is necessary to list the possessed qualities as an ascribed profile, quantitatively for each unit.

### 5.3. Learning Style Questionnaires

Honey and Mumford first published this instrument in 1982 and subsequently revised in 1986. The revised version consist simplified language to make the questionnaire more user friendly. The term ‘Leaning style’ has been explained in chapter 2 and 3 in detail. The nature of the learning style questionnaire is discussed here in a context that is used as an assessment instrument.

The learning style preferences describe the attitudes and behaviours of an individual on learning, that determine the way information is apprehended to make a meaningful decision. Over the years an individual probably have developed learning habits that gives benefit more from some events and less from others. Some are probably unaware of these facts. According to Honey and Mumford, learning style questionnaire will assist to identify a person’s learning preferences, so that he or she is in a better position to select the learning experience that best suits their style. Learning style questionnaire is designed to figure out the preferred learning style(s).

Honey and Mumford instrument contain eighty statements. They prearranged these statements into four groups:- Activist, Reflector, Theorist and Pragmatist. This questionnaire contains statements of indirect nature. The questionnaire enjoyed a greater face validity and wider acceptance in the academic world as an assessment instrument (Allinson & Hayes 1990) Reynolds (1997). Leaning styles are the key to understanding the differences in individual preferences to learning formats. It is only valid in this approach, more than as an indicator.

The questionnaire consists of eighty observable statements, and an example is as follows:

I have strong beliefs about what is right and wrong, good and bad.

Every style has its clear and distinct characteristics (see Appendix E) attributable to the different approaches taken to learn. The statements were written in a manner, where there are no right or wrong answers, and it invites participants to respond to them honestly. Participants spend about fifteen minutes to work through the

questionnaire, weight each statement and states their agreement or disagreement. In the provided column, participants only mark with a 'tick' for their agreement only. They are expected to mark with "tick" for their agreements or a 'cross' for disagreements, and all statements must be responded as illustrated below.

e.g. If you agree to a statement more than disagreeing to it, then you may mark a "tick" to it, otherwise (if you disagree more than agreeing to it) you may mark a "cross" to it.

### 5.3.1 Analysis

Honey and Mumford produced the system to unscramble the statements into the respective four groups: Activist, Reflector, Theorist and Pragmatist. Respondents have no access to such grouped format and grouped arrangement is available to analysis only. A tick for a statement indicates an agreement more than a disagreement, and a cross indicates the disagreement more than an agreement. Scoring the questionnaire is kept straightforward. Each tick mark is weighted with one point and each cross is given no points. All the statements given tick marks in each group are counted. This result of each group is out of a total of 20, as minimum score could be zero and the maximum score could be 20. If one participant failed to place a 'tick' even for one, and mark a 'cross' to all, in each group the possible score will be zero, alternatively, if response carry 'tick' for all statements and no 'cross' at all, then a maximum possible score will be 20. Both of these occurrences are possible and credible. This kind of results for a group is meaningless, and available literature shows that results per group will always falls between zero and 20 when honest participation is availed. If you place this score on a scale, any one scoring a ten could be seen as moderate numerically, a score less than ten may be seen as in the low end and any score more than ten may be seen as on the high end. Unfortunately, the model does not account a leaning style on this basis. It assumes that such attribute is natural, and it tends to form a natural spread.

Author designed and developed a computer model was using Microsoft Access to process the available responses. This model supposed to account the 'tick' marks, and weight a single point to each 'tick' mark. It is then to count all the score to each



response, and ascribe a single score value to each group of styles, for a unit of analysis as per the theory.

Over the period 1982 to 1988, Honey and Mumford have worked on this project and have developed various group norms. They constructed a set of general norms in order to compare the actual raw scores. The author personally conferred with Dr. Honey in this regard, to identify an appropriate set of norms that could be used for the current research. He pronounced that there is no set of norms so far developed for the very senior managers (managers with board room responsibilities - the type of population used in this research). Therefore, he suggested to use the general norms published (Table 5.4.). (The general norms developed with n=3500 cross section of professional/managerial working in industry and commerce in the UK.)

Styles	Very Strong	Strong	Moderate Preference	Low Preference	Very Low Preference
Activist	13-20	11-12	7-10 (mean 9.3)	4-6	0-3
Reflector	18-20	15-17	12-14 (mean13.6)	9-11	0-8
Theorist	16-20	14-15	11-13 (mean 12.5)	8-10	0-7
Pragmatist	17-20	15-16	12-14 (mean 13.7)	9-11	0-8

**Table: 5.4 General norms of Learning style Preferences**

The set of general norms presented here is reproduced with permission from Honey and Mumford. The norms are calculated by dividing the raw score spread into five bands as shown in Figure 5.5.

Band	Norm
A	The point at which 10% of the scores are above and 90% are below
B	The point at which 30% of the scores are above and 70% are below
C	The middle 40% of scores with 20% are above and 20% are below the mean
D	The point at which 70% of the scores are above and 30% are below
E	The point at which 90% of the scores are above and 10% are below

Figure: 5.4 General norms of Learning style Preferences

According to Honey and Mumford,

Any score in the A band indicate a very strong preference since statistically only 10% of the scores fall into this band, and the rest 90 % is outside the band.

Scores in the B band indicate strong, but not very strong preference.

Scores in the C band indicate moderate preferences.

Scores in the D band indicate low preferences.

Scores in the E band indicate very low preferences since statistically 90% of the scores are above this band.

An example of preliminary results (for a unit) obtained is illustrated below Figure 5.6, both numerically and graphically in Figure 5.7. These results are further subjected to statistical analysis to answer the research questions:

Learning Style Preferences	Raw Score
Activist	11
Reflector	18
Theorist	9
Pragmatist	11

Figure: 5.5 Learning style preferences of a Unit of analysis

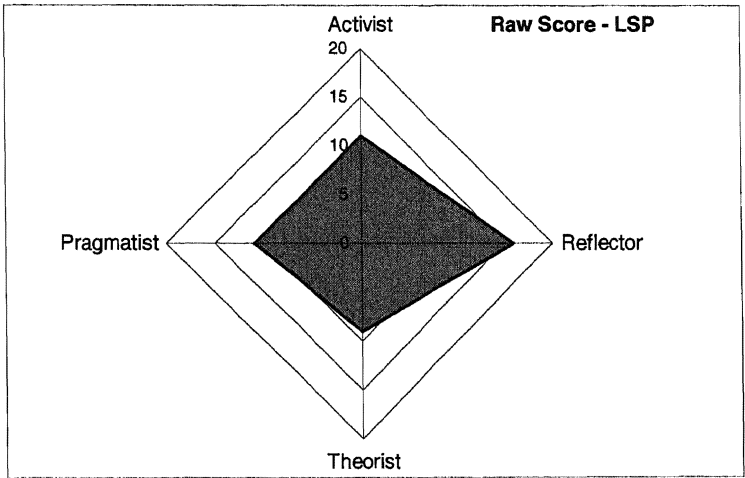


Figure: 5.6 Learning style Preferences of a unit of analysis

According to the general norms, the sample result above exemplified that an individual is having a strong preference for Reflector style compared to all others: pragmatist, theorist and activist.

A note is taken to the fact where a person scoring the same score (equal numerical values) on all four styles does not mean that there exists a similar strength in all four styles. This could be shown graphically as a possibility, but it is determined by the initial spread of the individual style scores. So far there is no evidence to say the spread could confine either way to such a conclusion. What is known so far is that

each style score spreads vary, and the range of scores determine the spread. The possible score range is zero to twenty, but human based scores tend to change every time. There will be no chance for a zero or else for a twenty. This contributes to a situation where even a balanced learner is found in all four styles, ascribed numerical scores may not become same.

In the next chapter the research results are listed appropriately to facilitate meaningful deductions. The results are presented in a meaning full manner. In this connection, content analysis and classification of similarities and dissimilarities etc are exercised. The fundamental part one results attempts to show the governing frame work in which the relationship is examined.

## CHAPTER 6

### SURVEY RESULTS

#### 6.1 Manager Profile Questionnaire

The survey was administrated on a sample of senior NHS managers, having individual's management development focus. All subject managers had board level responsibilities excluding all forms of clinical attachments. A total of nine hundred questionnaires were post distributed and a total of fifty-seven responses received including five incomplete. Results are presented here using statistical data, graphs and associated alphanumeric methods. The part 1 of the questionnaire expected to evaluate the individuality among the subjects surveyed. The perpetrated instrument (see Appendix F) was in three parts to draw data to assist the research, to answer the appropriate research questions and draw conclusions for presentation. This instrument attempted to understand the varying manager profiles.

##### 6.1.1 Demographic sample characteristics:

Author examined the jobholder's tenure of occupation in the current post and their age group. In this exploration, age group was categorised into four groups: less than 30, less than 40, less than 50 and less than 65, and the responses were grouped into three groups: less than five years, between five and less ten years, and more than ten years. The responses indicate over a half (56%) of the sample population surveyed were holding their offices for a period of less than five years; a third (33.5%) occupying for more than five years but less than ten years; and over a tenth, (10.5%) appears holding the offices more than ten years. The results revealed there were three prominent age groups among these occupants, 25% polled within 30 and 40 years of age, 40% polled within 40 and 50 years of age and the rest 35% polled within the range of 50 and 65 years of age. Looking at their age and service as shown in Table 6.1, it was significant to note that 55% of sample were having less than five years of

service of which, 55% were in the age group of 40-50, and 12% of the total were serving over 10 years.

Sample Age group	Service Duration			Total
	5 years	5 - 10 years	Over 10 years	
Aged 30 and 40	6	4	3	13
Aged 40 and 50	16	5	0	21
Aged 50 and 65	7	8	3	18

Table: 6.1 Occupation - Length of service and Age analysis

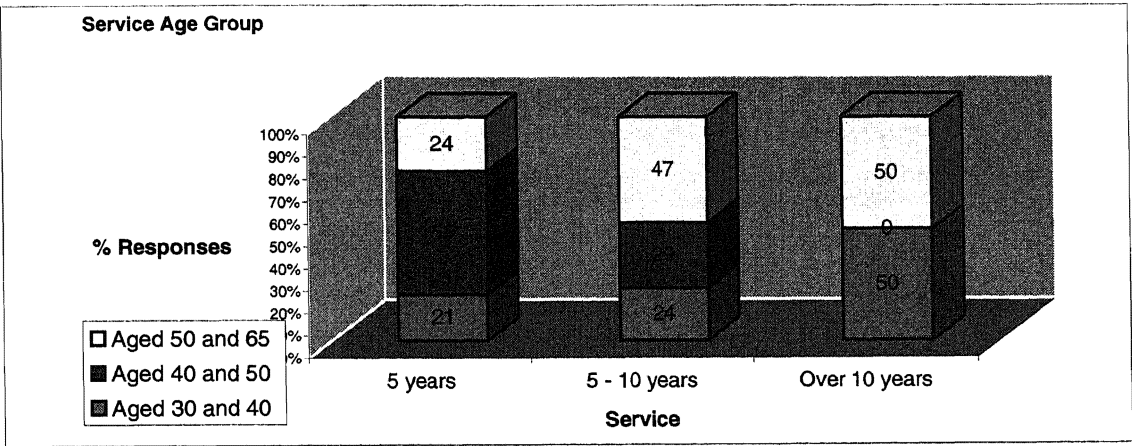


Figure: 6.1 Percentages of Managers (Tenure of Service)

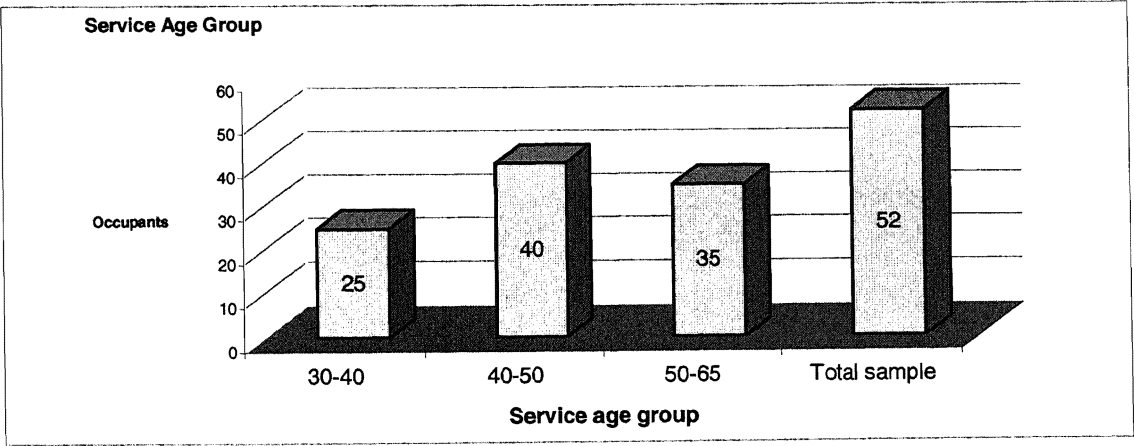


Figure: 6.2 Occupation in age groups

6.1.2 Experience infused

Investigating on subjects’ previous track records, only a tenth of the sample have had entered in to service from completely different work-settings compared to their colleagues; a nine out of ten (90%) entered from similar work-settings. It is emphasized here that subjects were responding from the today’s NHS Format, but those 90% of them were in the previous NHS settings for longer time. See Table 6.2.

Industry	Experience			
	Less than 5 Years	Between 5-10 Years	More 10 Years	Grand Total
Similar work settings	38	7	0	45
Different Work settings	5	1	1	7
Grand Total	43	8	1	52

**Table: 6.2 Sources of Experience**

The diversity of experience ranges from civil or public services to health service work-settings in its old formats, i.e. Health Authority or Health Services. A 76% of senior managers surveyed have had entered from these industry, and infused five or less years of their industrial experience into the present formats in question. Current data give reasons to believe that they brought-in the ‘old format practices’ into the new work terrains. On the other hand, NHS reform anticipated more of “outside” managers rather than similar, i.e. Public Sector in order to integrate general management. See Figure 6.3.

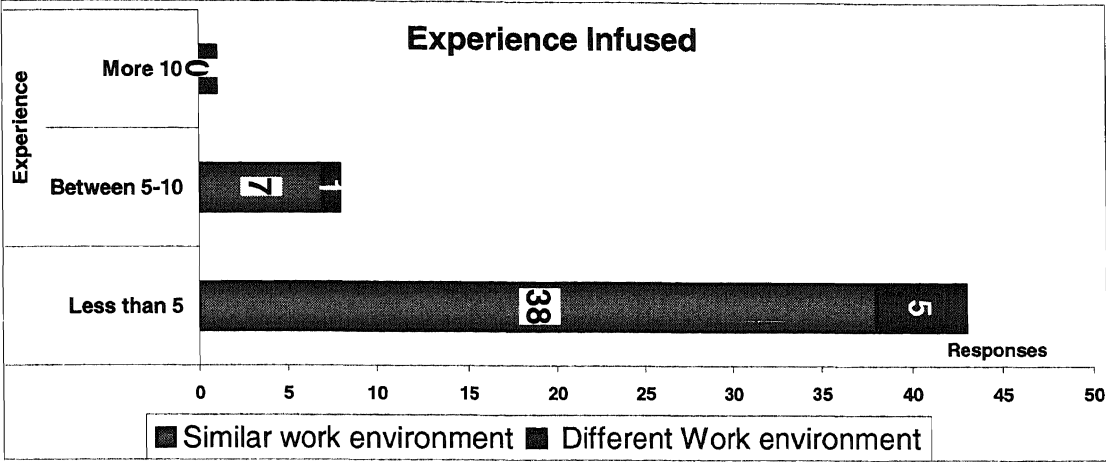


Figure: 6.3 Magnitude of Experience Infused

6.1.3 Portfolio of Professionalism

Verifications on entry to current jobs show, two third of these managers have entered with ‘academic’ associated qualifications compared to a fifth with ‘vocational based’ qualifications, and just over a tenth have entered with both academic and vocational qualifications to the jobs. See Table 6.3.

	Entry Basis and Tenure of Service									
	Academic		Academic Total	Vocational			Vocational Total	Academic & Vocational	A&V Total	Grand Total
	<5 yrs	5-10 yrs		Less 5 yrs	5-10 yrs	>10 yrs		<5 yrs		
Industrial Experience										
Similar	25	5	30	8	2		10	5	5	45
Different	2	1	3			1	1	1	1	5
Grand Total	27	6	33	8	2	1	11	6	6	50

Table: 6.3 Professional Histories

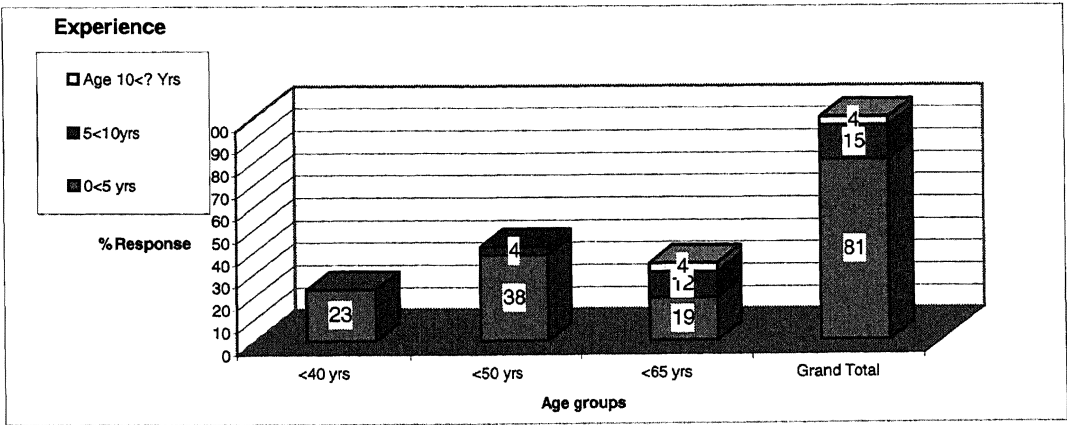
Consulting their relative industrial experience, tenure of service and the entry qualifications, majority of subjects are coming from Health industry itself but emerged from different settings, and entering with their last five or less years’ yield of experience compared to a tenth who have joined this domain from totally different work settings. See Table 6.4.



Age Group	Experience			
	Less than 5 years	5 to 10 years	More than 10 years	Grand Total
Less than 40	12			12
Less than 50	20	2		22
Less than 65	10	6	2	18
Grand Total	42	8	2	52

**Table: 6.4 Experience introduced by Age Groups**

Among those managers who have entered with less than five years of experience, 23% belongs to less than 40 years age group. A 42% were in the age group of less than 50 and a 35% belongs to over 50 years of age. This led to conclude that those aged between 40 and 50 years of age may have been remaining in the NHS systems under its previous formations. They might be holding more or less similar and or continuing responsibilities, and have now secured the present positions by seniority. Such group possibly have progressed through internal promotions, trailing behind the very senior group, the 50 to 65 years of age. (It is appreciated that NHS taking several varying organisation formats in the past two decades, and some respondents were in continuing employment when present format implemented.) See Figure 6.4.



**Figure: 6.4 Experiences and Age Relationship**

6.1.4 Attributable variations

The survey instrument went to understand other traits related areas in order to aid the research. The next question focuses on the nature of management development undertaken by the subjects to enhance individual portfolio of professionalism. The responses were content analysed into three groups: Non-Qualification related; Qualification related and others. See Table 6.5.

Age Group	Others	Non-qualification related	Qualification related	Grand Total
Less than 40	1	08	4	21
Less than 50	3	15	3	
Less than 65	1	14	3	
Grand Total	5	37	10	52

**Table: 6.5 Nature of Management Development solicited by Age group.**

The data revealed that 40% who sought subscriptions to non-qualification linked development were aged between 40 to 50, and 38% were in the group 50 to 65 years. Further, groups, 40-50 and 50-65, were almost subscribing evenly to qualification-linked developments. This category incorporates all other forms of management development linked to a qualification. Responses indicate that a seven tenth of the sample have subscribed to non-qualification linked development. It was significant to note that a 72% of the total respondents were favouring non-qualification and, little under one fifth of subscriptions were directly associated to qualifications as shown in figure 6.5.

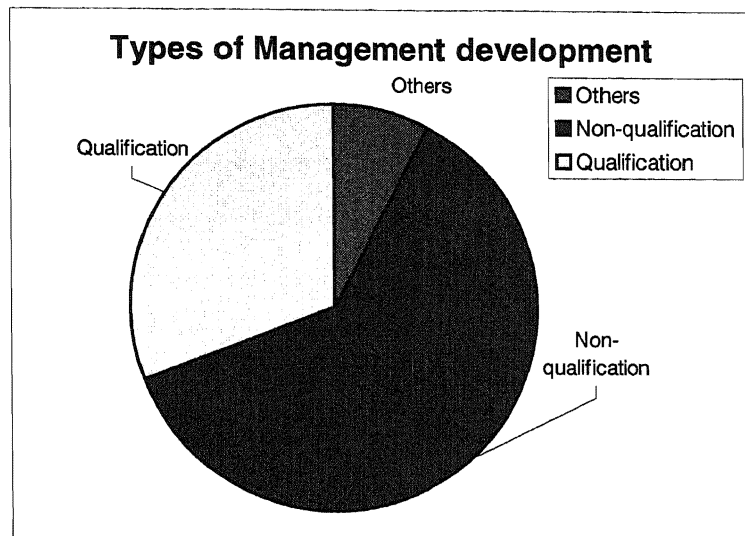


Figure: 6.5 Subscriptions to Management Developments

The non-qualification kind of developments that significantly promises includes events like conferences, role-play, learning sets, mentoring etc. It was evidence that among the 40 - 50 age group of the managers a 90% had less than five years of experience in the current job. These managers, it is visible that 71% were seeking non-qualification associated development. Similarly, in the 50 - 65 aged group, a 55% of managers had less than five years of service in current position, and among them 78% have subscribed to non-qualification linked management development. No further clarifications plausible to confirm whether these are embedded with their day-to-day work or otherwise. These are distinctive management development opportunities significantly subscribed by mature age groups.

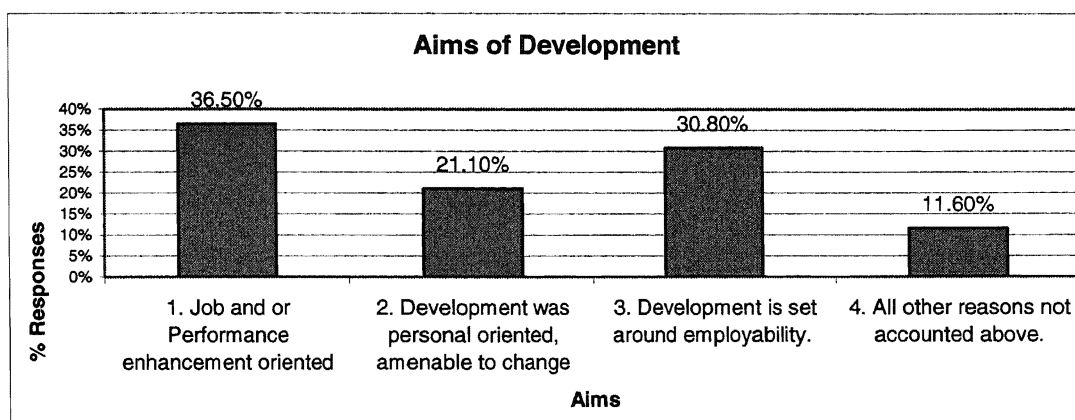
#### 6.1.5 Development focus

The next few questions were interested on reasons central to the subscriptions to development. It checked to verify the reasons behind undertaking such developments, and which eventually intended to enhance an individual's personal portfolio of professionalism. These responses were observed in four groups: Job performance related, Person related job requirement, Person employability and all other reasons that cannot be accommodated within the above three category. It was observed as in Table 6.6:

Reasons	Other	Non-qualification	Qualification	Grand Total
Other	05	01		06
Performance		17	02	19
Personal, to help the job		07	04	11
Person Employability		12	04	16
Grand Total	05	37	10	52

**Table: 6.6 Aims of Management Development undertaken.**

It was checked in four relative contexts: job, person, career and future change related.



**Figure: 6.6 Management Development Aims**

Job or performance related developments were sought by 36.5% of subjective managers, 19 of the 52 indicated that they chose performance associated development in order to safe guard their current jobs, other wise threaten by the world of change. A 30.8%, 16 out of 52 managers believed that any form of development they pursue should enhance their employability compared to any other issues, as an insurance against job insecurity and socio-economic implications seen as a potential threat to NHS senior managers. They apparently had under taken management development in this focus. A mere 20%, 11 of the 52 responses indicated that their development was of self-preparation for the job requirements, to develop themselves. Their responses

were pointing towards a personal development to improve performance in the job compared to other expectations solicited by the survey.

**6.1.6 Managerial Qualities and Management functions in the NHS**

A couple of questions used to verify managers’ awareness on what their significant functions were, and what managerial qualities were found to be useful in those areas? This is like finding out what managers say they do and what they in fact really do? Sampled managers (with board level responsibility for managing the institution) appear to be executing fewer activities with corporate focus and directive nature, than that of administrative nature. The collected responses appear to be somewhat complex and confused. It only helps to believe that more of human resource principles were significantly integrated activities, i.e. organisation development, networking etc., at board level together with personal management, quantitative analysis etc. In this connection, the list of managerial qualities (shown below) were provided to the respondents, and asked to identify those important:

- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| a. Command of basic fact                            | <input type="checkbox"/> | g. Proactivity                            | <input type="checkbox"/> |
| b. Relevant professional knowledge                  | <input type="checkbox"/> | h. Creativity                             | <input type="checkbox"/> |
| c. Continuing sensitivity to events                 | <input type="checkbox"/> | i. Mental agility                         | <input type="checkbox"/> |
| d. Analytical, problem solving &<br>decision making | <input type="checkbox"/> | j. Balanced learning habits<br>and skills | <input type="checkbox"/> |
| e. Social skills and abilities                      | <input type="checkbox"/> | k. Self-knowledge                         | <input type="checkbox"/> |
| f. Dispassionate impartiality                       | <input type="checkbox"/> |   |                          |

It was to understand whether any of these managers could recognise the four managerial qualities (studied in this research). (The examined meta-qualities are marked h, i, j, and k). For the question of what managerial qualities necessary 39% voted creativity and 26% voted mental agility, where as 35% failed to recognise any other managerial qualities that are investigated. It appears that managers were heavily relying on second order learning (Batson’s category ‘c’ through to ‘g’), which Burgoyne identifies as managerial skills and attributes: Analytical, Problem solving and Decision-making, that ranked first followed by Pro-activity. Self-knowledge and Balanced Learning Habits, the two of the four meta-qualities examined were ranked at the bottom.

This statistics does not fit with those grounded theories of several academics - on qualities seen at the board level managers compared to ordinary managers. The author ponders a question here, does the nature and characteristics of the work-setting plays a part in deteriorating the managerial qualities otherwise should have embedded with board level managers? This question is raised on the understanding of those contributions fielded by Pettigrew, Burgoyne, Boyatzis etc., on senior managers' managerial qualities.

### **6.1.7 Changing world of work at NHS**

The question 9 was looking at the future of the subjective managers and their work settings. The responses were grouped into three as:

- Positive change with unclear mind on change. Move along with the change, and
- Positive change with clear view of what to do and how to be ready for it, and
- Gathered all those have no idea what's so ever on what the change is? or how should they change?

Just over half, a 52% clearly agreed that change is inevitable and changing in advance for the change ahead is the wise move to progress without any difficulties. A two fifth accepted that they also see the change as apparent in the future, but failed to clearly explain the clarity of their mindset in that context. They were hazy how the change could affect them or their job. They held flowing along the movement of change is better than trying to be proactive. The rest of the managers were intent to sit tight till the time come. A question try to test those propositions proposed to improve a person's managerial qualities in connection to the changing future, and the responses were analysed as stated in Table 6.7 below.

Propositions - self development of managerial qualities and linking change	Scores
1. Focus on future change and consider individual's development.	25.0%
2. Individual development do not consider or focus the future change	34.6%
3. Individual willing to maintain a status quo, having no focus on future changes.	17.3%
4. Individually maintaining status quo, having focus on future change	19.2%

**Table: 6.7. Change and Development Responses**

	Develop Qualities	Do Nothing
Focus change	1	4
No Focus	2	3

**Figure: 6.7 Changes and Development Responses Grid**

When examining the result, four types of composition emerged as shown in the grid in Figure 6.7.

Little over a third of responding managers, seriously considering developing their managerial qualities outside their employment context, attempted to proceed on management development outside their employment boundaries. Responses indicate that developments mostly are self-centred, having no focus on the future changes anticipated to affect the job. Managers propose developments to raise themselves abreast others, and have had no liking to any form of change associated to their job or its performance.

Some subjective managers propose development activities in order to equip themselves to meet the change driven demands. This group, a twenty five percent of the respondents, were proposing developments to personal qualities, having development propositions aimed to deal with requirements associated with future changes to their work settings.

Nineteen percent of the responding managers, with prior knowledge of change effects apparently do nothing without seeking any development initiatives. This may be in hope that the work setting will prepare them appropriately. This indicates that managers were interested to go with the flow as it happens.

Finally, seventeen percent of the respondents had neither prior knowledge on changes in work situations, nor any development initiatives to enhance their managerial qualities. These respondents actually imply that the propositions made for development of personal qualities neither focuses on the future change foreseen, nor even on the development requirements.

Responses illustrated when reasoning such management development participation, there were 36% reasons of ‘personal’ focus, another 30% reasons of ‘job’ related and the balance 34% deliberated other reasons outside the preceding two categories.

**6.1.9 Development approaches and its influence**

Questions (Qs: 11 - 13) checked those development processes adapted, aiming to understand whether those had any bearing on the job-oriented, or person-oriented interest. All responses linking directly or indirectly associated with the current job or job performance in the future were accounted under the ‘job’ category. All other responses directly or indirectly associated with person were classified under the category of ‘person’ interest. See table 6.8.

MD Approaches	Negative drivers to management development			Positive drivers to management development		
	Job	Person	Grand Total	Job	Person	Grand Total
Others	3	3	6	4	2	6
Non qualification	20	12	32	11	21	32
Qualification	8	6	14	8	6	14
Grand Total	31	21	52	23	29	52

**Table: 6.8 Reasons for Management Development**



The responses divided fifty-six to forty-four, with majority on personal development interest. It was learnt from the second set of responses for seeking the contravening issues, that, these individuals are seeing change as those factors endanger the jobs - 59%. The rest 41% considered that developments would assist them with employability in the future. Further analysis clearly indicated that those who selected the non-qualification linked management development for personal reasons were in fact appears to have done so in order to avoid significant job related insecurity. This was observed when looking at those threats, 20 out of 32 responses sited lack of development as a restriction to secure job and its performance in the future. Overall, it was noticeable that the positive ‘person oriented’ development drivers were in fact seen to be those negative ‘job oriented’ factors, emphasizing management development among the sample managers. Analysing responses of the two questions, (Q5 and Q13) respondents were consistent in their development responses: 30 out of 37 sought non-qualification linked portfolio, and 30 out of 32 used non-qualification linked approaches for this management development (Table 6.9 below).

	Portfolio Added			
MD approaches	Others	Non-qualification	Qualification	Grand Total
Others	4	1	1	6
Non-Qualification		30	2	32
Qualification	1	6	7	14
Grand Total	5	37	10	52

**Table: 6.9 Adapted approaches and portfolios**

Available data set limits to further insights on developments taken whether they were in the same employment or at a different employment.

**6.1.10 Nature of Management development facility**

The next question inspected the type of significantly subscribed developments (employer facilitated) by the respondents in their work settings. The dataset documented the ‘non-qualification linked’ developments as the mostly subscribed

developments, 64%. A minority, a fourth subscribed to qualification linked developments and a tenth had no opportunities so far at the time of survey 1998-99.

MD opportunities	Most valued MD			
	Others	Non-qualification	Qualification	Grand Total
None	4	2		6
Non-qualification	7	20	5	32
Qualification	1	5	8	14
Grand Total	12	27	13	52

**Table: 6.10 Valued Management Development Experiences.**

Among the non-qualification kind, taking up new challenge was 21%, executive-learning sets and seminars collecting 19.6%, both are the prominently selected. Further, in the learning sets, outside the work settings involvement appears to be highly favoured compared to teamwork, assessment centres and other in-house management development programmes. Those seeking qualification attached management development apparently opted to join higher degrees at universities.

Questionnaire asked the respondents to identify those most valuable management developments they appreciated. It was observed that half of the respondents voted for non-qualification links such as new challenge experience, action learning, networking of knowledge compared to role play, executive coaching or assertiveness training. The balance divided with 25% quoting their enjoyment at higher degree, while the balance indicating no participation in any development, and therefore, decline to comment either way.

When both the age groups and service element considered for those who favoured the non-qualification associated developments a forty-eight percent tallied of those with less than 5 years of service, of which, 35% were less than 50 years old, and 55% were in the 40-50 age group. In the 5 to 10 years group a third tallied, of which 35% were less than 50 years. (See Table 6.11 below)

Age	(Q14) Most valued MD												
	Age 31-40			31-40 Total	Age 41-50			41-50 Total	Age 50-65			50-65 Total	Grand Total
	Others	Non- qualific ation	Qualific ation		Others	Non- qualific ation	Qualifi cation		Others	Non- qualifi cation	Qualifi cation		
<5	1	5		6	5	5	6	16	1	4	2	7	29
5-10		4		4	1	2	2	5	3	3	2	8	17
>10		2	1	3					1	2		3	6
Grand Total	1	11	1	13	6	7	8	21	5	9	4	18	52

**Table: 6.11 Age and Experience classifications for Valued Management Development**

**6.1.11 Management Development contribution**

A question was poised at this stage to enquire the respondent’s awareness to any achievements gained via participated management development exercises. It was noticed that only forty percent had some personal achievement. The balance had achievements that do not fit into classifications under personal development here. Some respondents were figuring social recognition, and some cited functional efficiency etc. Asked whether any of the managerial qualities were found to have changed or modified by the developments undertaken, it was recorded that just over half of the respondents reported negative. The balance divided in-between creativity and mental agility, (two of the four meta-qualities) being investigated. No responses for balance learning habits and self-knowledge, the other two qualities. Dataset reads that creativity and mental agility were the two qualities that have been modified through the development undertaken.

Achievement from MD	Most valued Management Development			
	Others	Non-qualification	Qualification	Grand Total
Others	11	15	5	31
Personal achievement	1	12	8	21
Grand Total	12	27	13	52

**Table: 6.12 Management Development Contribution**

Questionnaire queried the nature of the development exercises in term of the contents and processes, the approaches and delivery. Forty percent suggested that the approach and its processes were helping their ‘way of development’, 17% responses for the course contents and components, where 43% voted totally against the two concerns examined. Questioned on the respondents’ preferences to management development exercises and the duration preferred, the following responses were recorded. (See Table 6.13)

Type of Qualification	Short term (1-6 months)	Medium term (6-12 months)	Long Term (over 12 months)
Non-Qualification linked	9	13	8
Qualification Linked	3	5	2
Others	5	3	2

**Table: 6.13 Management Development Preferences**

**6.2: Managerial Meta-Qualities**

The Part 2 of the research instrument measured the managerial qualities of the senior NHS managers surveyed. Responses illustrate an agreement or disagreement to a set of 40 statements especially selected from Burgoyne and Stuart Model, for this study.

**6.2.1 Descriptive statistics:**

Descriptive statistics are used to present the results clearly, that can be understood by a reader on measures of central tendency: mean, median and mode.

Mean accounts all the data and compute an average. It is widely preferred because it uses all the raw scores in its computation. It could be used in versatile formats with further calculations, but also gives misleading picture of the data if atypical value or an out layer is involved.

The median is the middle value of a data set when arranged as an array. It will not account the values of the data but indicates the middle number of the array, and have no value sometimes if seeking an understanding. It could split a set into two halves.

The mode is the most frequently occurring value in a data set, the most to gain a general impression of the average where there is a large set of data. This will not also account the respective values of the data set, but only indicates the most popular value of the data set if necessary.

**Table 6.14   Raw scores. (See Appendix G 1)**

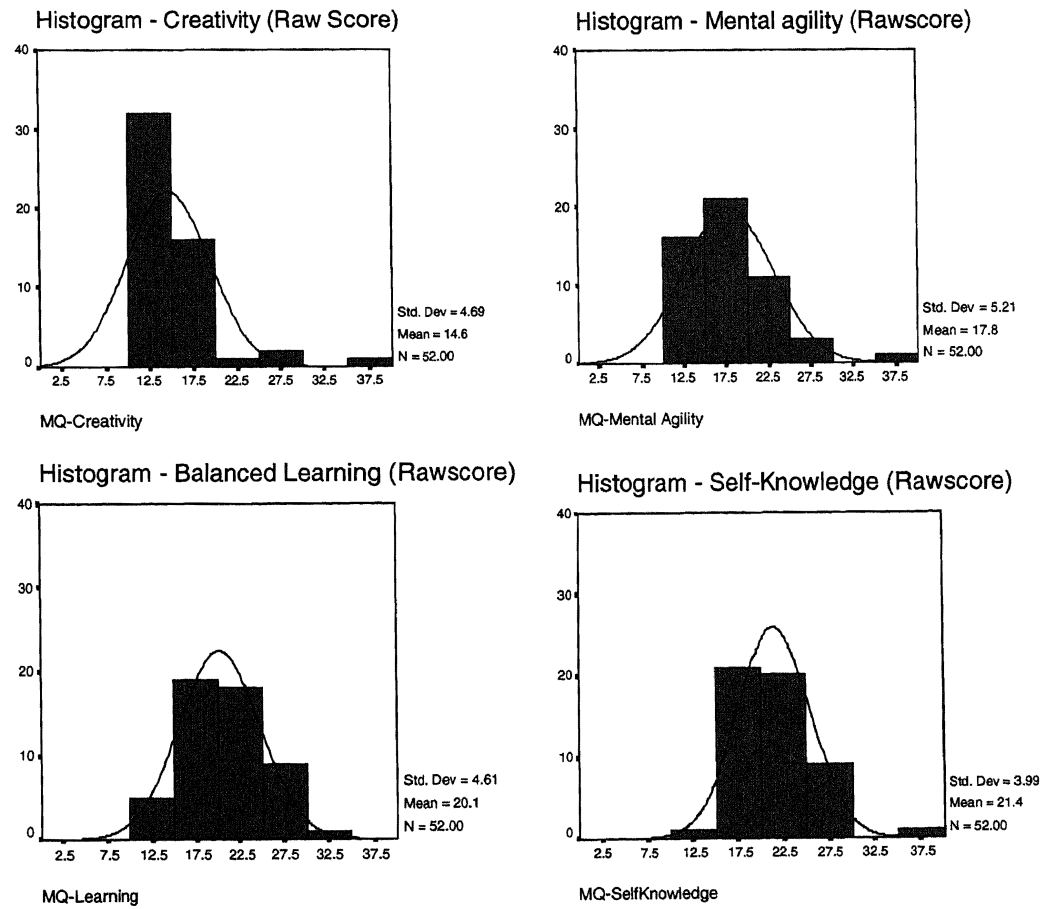
Descriptive Statistics

	N	Minimum	Maximum	Mean		Std.	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error
MQ-Creativity	52	10	35	14.62	.65	4.687	2.101	.330
MQ-Mental Agility	52	12	39	17.75	.72	5.213	1.627	.330
MQ-Learning	52	10	33	20.13	.64	4.615	.318	.330
MQ-SelfKnownled	52	13	35	21.42	.55	3.992	.808	.330
Valid N (listwise)	52							

Table 6.15: Simple statistics - Meta-Qualities. (see also Appendix – I)

Illustrated below the visual presentation of the simple statistics (SPSS Ver. 11.5), providing an opportunity to feel the kind of dataset available for further exploration.

Figure: 6.8 Bar charts - the Basic Statistics of Meta Qualities



6.2.2 Frequency Distribution

Frequency presentations are less common in research articles. It is especially presented here to illustrate the spread of the data set. The data was grouped the illustration below (Fig 6.9) illustrates the classing of the occupants and the diversity of responses. Such information can be used to peruse a visual representation of the data, and in some cases, the behaviour of the data set. The frequency distribution histogram demonstrates the spread enjoyed by the data set.

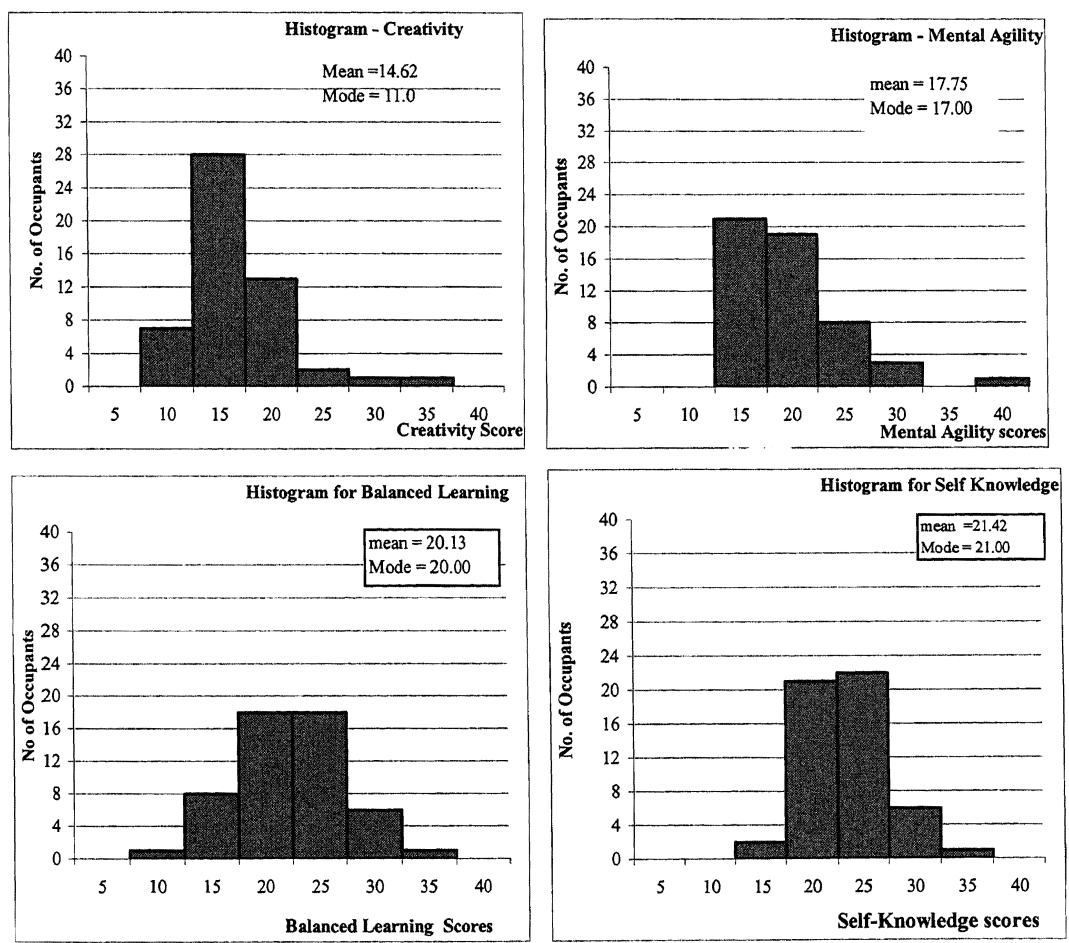


Figure: 6.9 Frequency Histogram – Meta-Qualities

### 6.2.3 Measure of Dispersion

The 'Measures of dispersion' (measures of variability) addresses the degree of clustering of the data about the mean. It explain whether most data were relatively closer to the mean or, were they scattered over a wider interval and thus farther from the mean? The extent of the cluster or spread of these data around the mean determines the degree of dispersion. If all the data were at the mean, then there is no dispersion at all; normally dispersion increases from zero as the spread of data widens about the mean either side. The most powerful measure of dispersion is known as Standard Deviation, indicating the average of the distance of all the scores spread around the mean. The larger the standard deviation, the more widely spread they are relative to the mean. The standard deviation is expressed in terms of the data that is being analysed. There is a very interesting and useful relationship between the standard deviation and the normal curve of distribution. If a set of data is considered that approximates to a normal distribution, the knowledge of the mean standard deviation of this data will help us to draw the distribution. One of the main characteristics of a normal curve is that its standard deviation equal to 1, and it's mean is equal to zero. Another property of the normal distribution is that the same proportion of data falling between particular points of the distribution such as 68.26% of all data fall between 1 standard deviation below or above the mean; 95.44% of data falls between 2 standard deviation below or above the mean. Finally, it is a fact that half of the data falls either side of the mean. This assists us to believe that all data found under a normal distribution falls between 3 standard deviations on either side of the mean. Application of this concept in practice, it is possible to locate a given data under the curve, or otherwise, to locate the value of data at a specific location under the curve.

In this connection, Z score helps to identify and to label a raw data in the form of Standard Deviation, (SD). This means, for a given raw score 'x', it is 'Z' standard deviation away from the mean. This facilitates the 'probability' of a particular 'x' score, given the SD value. These are commonly employed when it is necessary to compare data sets in a common form.



In order to identify a value of ‘X<sub>n</sub>’ at a particular location, (a position away from the mean), the following formula is used:

$$X_n = Z_n * SD + \text{mean}$$

In here, the Measure of Dispersion assisted to estimate a specific value (X<sub>n</sub>) at a location in the data set. Author used this methodology (in his work) to identify upper boundary positions in an attempt to construct a norm table, and to prescribe a ‘Norm’ for the managerial quality. (It is believed, that this is the first attempt to develop such a managerial quality norm, concerning managers.)

6.2.4 Managerial Meta-Qualities

Following table (Table 6.17) presents tabulation of the raw score in bands This table illustrates boundaries for the top and bottom end 10% (SD ± 1.28) and the 40% (SD ±0.52) around the mean (20% either side of mean). Similarly, it also helps to secure the 20% within top or bottom 10% and the middle 40% of scores.

Boundary Limits MQs	10% scored less than	20% scored less than	30% scored less than	50% scored above	30% scored above	20% scored above	10% scored above
Creativity	9	11	12	15	17	19	21
Mental Agility	11	13	15	18	20	22	24
Balanced Learning	14	16	18	20	23	24	26
Self Knowledge	16	18	19	21	23	25	27

Table 6.17: Measure of Meta qualities boundaries - NHS senior managers

It is good to recollect the original concept of meta-quality, which reads as: “higher the score indicates high requirement for management development exercises and, lower the score means less requirement for management development exercises”. To maintaining this concept, and to relate the results to this concept, the score boundaries

identified above were appropriately ordered into Five Bands. Having found the boundaries using the SD values, a set of norms was presented in table 6.18. The low scores will portray those managers with high qualities, those managers who do not require management development in comparison to those managers who are scoring high values (found in the bottom groups), and who seriously need development. The best group (Top 10%) reflects true non-requirements of development exercises, and the bottom group (Worst 10%) reflects the true requirements of management development activities as proposed by Burgoyne and Stuart 1977 model.

It is a milepost to declare that there were no formal propositions or prescriptions so far made to date to portray a Managerial Qualities Norm. Here, this proposition was ascertained with a decent population and a representative convenience sample of Board Level Senior (NHS) Managers.

Groups MQs	Top 10%	Next best 20%	Middle 40%	Bottom 20%	Worst 10%	a) Mean	Range
						b) Stdev	
Creativity	0-8	9-11	12-17	18-21	22-40	a) 14.62	10-35
						b) 4.69	
Mental Agility	0-10	11-14	15-20	21-24	25-40	a) 17.75	12-39
						b) 5.21	
Balanced Learning	0-13	14-17	18-23	24-26	27-40	a) 20.13	10-33
						b) 4.61	
Self Knowledge	0-15	16-18	19-23	24-27	28-40	a) 21.42	13-35
						b) 3.99	

**Table 6.18: Meta-Qualities NORM – (for senior NHS managers n=52)**

On the basis of this norm, it is now possible to figure out how many managers could take positions in each of the norm group. The Table 6.19 below classifies the managers surveyed in terms of the norm, to have a feel of how many managers found in each band.

Groups MQs	Top 10%	Next best 20%	Middle 40%	Bottom 20%	Worst 10%
Creativity	00	14	26	09	03
Mental Agility	00	16	24	08	04
Balanced Learning	03	12	26	06	04
Self Knowledge	02	11	25	11	03

**Table 6.19: Number of Managers in each Meta Qualities Norm Group**

Significant observations were that:

- there were no constituents found at the top 10% group for Creativity and Mental agility;
- there were three managers found for Balanced Learning and two for Self Knowledge.
- in contrast, at the worst 10% group, there were only three managers each for Creativity and Self Knowledge, and four observations each for Mental Agility and Balanced Learning found.
- the bulk of the observations were found in the middle 40% range, ( $SD \pm 0.52$ ) with twenty-six managers for Creativity, twenty-four for Mental Agility, twenty-six for Balanced Learning and twenty-five for Self Knowledge.

### 6.3 Learning Style Preferences

#### 6.3.1 Descriptive statistics:

The original Learning Style Preferences questionnaire (Honey and Mumford 1988) was used to measure the learning styles preferences of the sample of senior NHS managers. There were eighty statements of observable behaviour in four groups. A total of 52 fully completed responses (units) were analysed. Data Processing provides a highest score of 20 for each unit agreeing for all the statements in each category, or scoring a score of zero for totally disagreeing to all the statements in that a group. Using this process method, each unit were attributed with a score for all four categories of learning style preferences. The Table 6.20 below illustrates the simple statistics computed with the SPSS Ver. 11.5. The results obtained will assists to assess the responses against that of the original norms presented by Honey and Mumford.

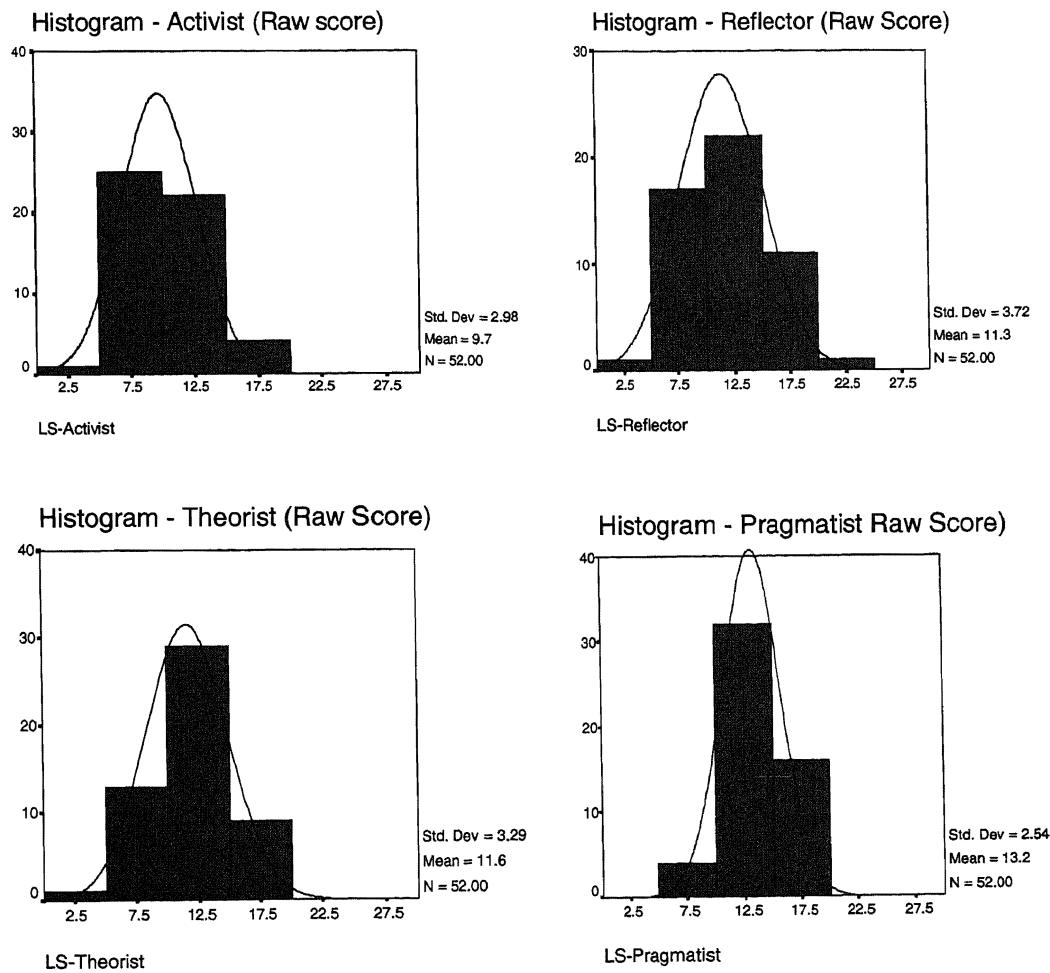
**Descriptive Statistics**

	N	Minimum	Maximum	Mean		Std.	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error
LS-Activist	52	4	17	9.69	.41	2.981	.274	.330
LS-Reflector	52	4	20	11.33	.52	3.724	.293	.330
LS-Theorist	52	4	17	11.58	.46	3.292	-.405	.330
LS-Pragmatist	52	7	17	13.17	.35	2.542	-.492	.330
Valid N (listwis	52							

**Table 6.20 Descriptive statistics - Learning Style Preferences (See appendix –I)**

The histograms shown below in Fig 6.11 graphically explain the spread the data set enjoys in terms of a normal distribution.

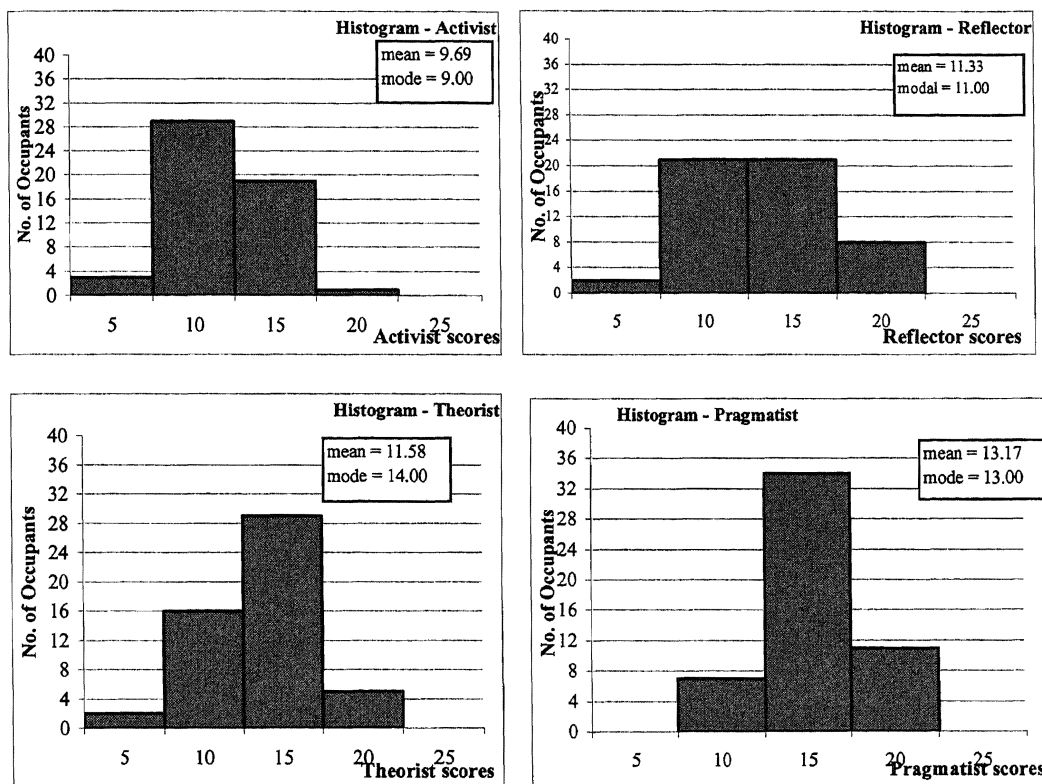
Figure: 6.10. Simple statistics for Learning Style Preferences



### 6.3.2 Frequency Distribution

Learning Style Preferences scores were grouped in an order to read the spread, and illustrated below as the histograms (Fig 6.12) to indicate the diversity of occupying data.

Figure: 6.11 Frequency histogram – Learning Style Preferences



Measure of central tendency however does not give all the information needed when describing or comparing two sets of data. In order to learn more it is necessary to look at the displacement using Measures of Dispersion.

### 6.3.3 Measure of Dispersion

A measure of dispersion is the measure of variability, addressing the degree of clustering of the scores about the mean. It explains either the relative closeness or the distance of the data and the mean. The most powerful measure here is the Standard Deviation. The larger the standard deviation of a set of data, the more widely spread they are relative to the mean. Secondly, one important characteristics of a normal distribution is that the same proportion of scores falling between particular points of

the distribution as discussed in Section 6.2.4. Utilizing this concept, a given ‘raw’ scores can be located under the curve. This methodology assisted in developing the following table (Table 6.22), and to prescribe Learning Style Preferences Norm for the dataset of the NHS managers.

Boundary Limits Styles	10% less than	20% less than	30% less than	50% scored above	30% scored above	20% scored above	10% scored above	a) Std.dev, b) Range
Activist	6	7	8	10	11	12	14	a) 3.0, b) 4 - 17
Reflectors	7	8	9	11	13	14	16	a) 3.7, b) 4 - 20
Theorist	7	9	10	12	14	15	16	a) 3.3, b) 4 - 17
Pragmatist	10	11	12	13	14	15	16	a) 2.5, b) 7 - 17

**Table 6.21: Boundary limits - learning style preferences of the NHS senior managers**

### 6.3.4 Learning Style Preferences

Using the concept of measure of dispersion and the meaning of Z values (as discussed earlier in this chapter), and appraising the collected dataset it is possible to tabulate below (Table 6.23) the boundaries of given data positions. The top 10% and the bottom 10% were located within the range using  $Z = \pm 1.28$ . Similarly the boundaries for 40% around the mean (20% either side of mean) were located using Z values of  $\pm 0.52$  located. It must be noted that it was on the same line and depth in thought with Honey and Mumford Norms. Working ahead, a Norm table was produced as shown in Table 6.23.

Score LSPs	Top 10%	Next best 20%	Middle 40%	20% of bottom half	Lowest 10%	a) Mean b) Std. dev
Activist	15-20	11-14	8-11	6-7	0-5	a) 9.7 b) 2.95
Reflector	17-20	14-16	9-13	7-8	0-6	a) 11.1 b) 3.69
Theorist	17-20	15-16	10-14	7-9	0-6	a) 11.58 b) 3.26
Pragmatist	17-20	15-16	12-14	10-11	0-9	a) 13.7 b) 2.53

**Table 6.22: Learning Style Preference Norms for NHS senior managers**

(It is best appreciated here, that those scores occupying the top end are the best compared to the bottom end.)

Using the Norm produced above (Table 6.23), author attempted to classify those respondent managers in terms of the norm, and found how many of these managers take what positions in the norm, and this was illustrated in Table 6.24.

Best Score LSPs	Top 10%	Next best 20%	Middle 40%	20% of bottom half	Lowest 10%
Activist	04	16	23	11	03
Reflector	06	08	26	08	04
Theorist	03	06	29	10	04
Pragmatist	05	11	23	09	04

**Table 6.23: learning style preferences – Number of Managers' within the norm:**

Observations indicate that majority of them, 44% to 56% are found scoring around the mean value, in the middle 40% band,  $Z=\pm 0.52$  (20% either side of mean). 7.7 % of the respondents occupied each at the low end ( $Z=-1.28$ ) of Reflector, Theorist and Pragmatist styles. 5.7% to 11.4% observations are at the top end ( $Z=+1.28$ )



distributed as detailed with all four styles. 15% to 21% observations occupied the bottom 20% where as the 21% to 31% observations apparently sited at upper 20%, outside the middle 40% level.

In the next chapter the author elaborates on the observations and reviews concerning the specific relationships between meta-quality variables and learning style preferences in its sub sect form as well as in its single profile format. All relationship-linked discussions are leading to the final conclusion thereafter.

# RELATIONSHIPS

The ultimate purpose of this study is to explore and establish the relationship, if any, between meta-qualities and learning style preferences, and attempts to conclude upon the results. In this connection, first it attempted to explore the probable relationship between those sets of variables of a manager. The paradigm here is that a manager’s learning style preferences effected and shaped by the one’s possessed meta-qualities. Those learning style preferences were made fittingly to the possessed managerial qualities. A senior manager benefits from a development procedure only when it adequately enhances the anticipated development requirement. Further, managers accept a procedure that they find comfortable and enjoyable.

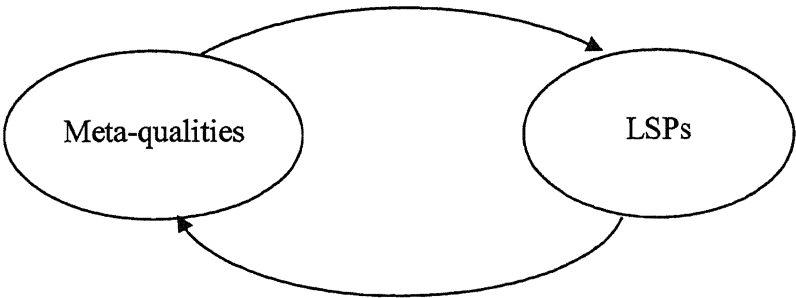


Figure: 7.1 Function of Meta-quality and Learning style Preferences in a manager.

Assuming this paradigm, the learning style preferences of a manager vary with what process of learning the manager finds comfortable to condense and convenient to partake. Also, decisions on a procedure to learning or development were driven by the manager’s potential professionalism, which drives the individuality at that moment of decision-making. All these leads to believe that a manager’s learning style preferences have an association with those possessed meta-qualities or vice a versa.

To understand the degree of relationship anticipated, a group of very senior managers were studied. Among the population post-surveyed, a convenience sample of fifty-two facilitated sets of scores, which have been grouped and used appropriately: meta-qualities (4 sets) and learning style preferences (4 sets). In order to test, a hypothesis is necessary as follows:

Managerial qualities studied do not have any form of relationships with the learning style preferences of the sample managers.

$H_0$  = there is no correlation between the variables examined. ( $r=0$ )

If there is any relationship, then the alternative hypothesis,

$H_1$  = there exists a degree of correlation, appropriate to the sample size. ( $r \neq 0$ )

If  $H_0$  is probably true then the  $H_1$  is probably untrue. Alternatively, if  $H_1$  is true, then the conclusion is that the test hypothesis  $H_0$  is obviously untrue. Also if  $H_0$  is true it is wrong to conclude that always the variables are not related, but it is accepted that the research-based conclusion is only valid on its own merit. It is further counted that the relationship is probably liner (Pearson  $r = \pm 1$ ) or not, and there may be a tendency for a relationship that cannot be casual. All tests are being carried out at  $\alpha = 0.05$  (two tail), and the critical value used for the test decision will be on same line.

## **7.1 Meta-qualities and learning style preferences: Is there a relationship?**

### **7.1.1 Relationships: Meta-Qualities and Learning Styles**

In statistical context, correlation coefficient  $r$  is an appropriate guide. Pearson's Product Movement correlation method was applied to the sets of data that was normalised using Z score. In social statistical context, generally, a relationship to exist the correlation coefficient should read between -1 and +1. Having a coefficient of zero means non-existence of a liner relationship. Sirkin 1999 suggests that rarely a coefficient of 0.70 to 0.90 is obtained from human responses, in human related social

and behavioural research. It is learnt that this coefficient will be low, and mostly found between 0.20 and 0.40. Secondly, statistical significance is a dependent of the sample size. If the sample size is large a more significant coefficient is feasible, and if the size is smaller then it does not read to say that the coefficient is non significant.

Table 7.1 below illustrates the correlation results obtained with SPSS (Ver11.5). A statistically significant relationship was found to exist between the two primary variables, and also among sub-variables of the two primary variable sets. A relationship was observed between Metal agility (one of the meta-qualities) and Reflector (one of the learning style preference). It was found to be positive and statistically significant ( $r_{(50)}=0.346$ ,  $p<0.05$ ), and has a largely low probability ( $p=0.012$ ) of occurring due to a chance or likely to be no relationship.

**Table: 7.1 Correlation Matrix – Meta-qualities and Learning style preferences**

		<b>Creativity</b>	<b>Mental Agility</b>	<b>Balanced Learning</b>	<b>Self Knowledge</b>
<b>Activist</b>	Pearson				
	Correlation	-.055	-.045	.064	-.162
	Sig. (2-tailed)	.699	.749	.650	.252
	N	52	52	52	52
<b>Reflector</b>	Pearson				
	Correlation	.092	<b>.346(*)</b>	-.038	.101
	Sig. (2-tailed)	.518	<b>.012</b>	.789	.475
	N	52	<b>52</b>	52	52
<b>Theorist</b>	Pearson				
	Correlation	.151	.221	.137	.245
	Sig. (2-tailed)	.286	.115	.334	.080
	N	52	52	52	52
<b>Pragmatist</b>	Pearson				
	Correlation	.100	.105	.152	.172
	Sig. (2-tailed)	.483	.457	.283	.222
	N	52	52	52	52

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

(Full SPSS version is appended in the Appendix J)

The result does not assist to believe that this particular relationship is one that could have occurred by a chance at a confidence level of 95%. This degree of relationship is similar to one that was discussed by the sociologist (Sirkin 1999) and psychologist

(Aron & Aron 2003). It was most probably statistically significant, with a positive relationship, and having a probability to conclude that it is not by a chance.

A scatter graph for this relationship is provided below in figure 7.2.

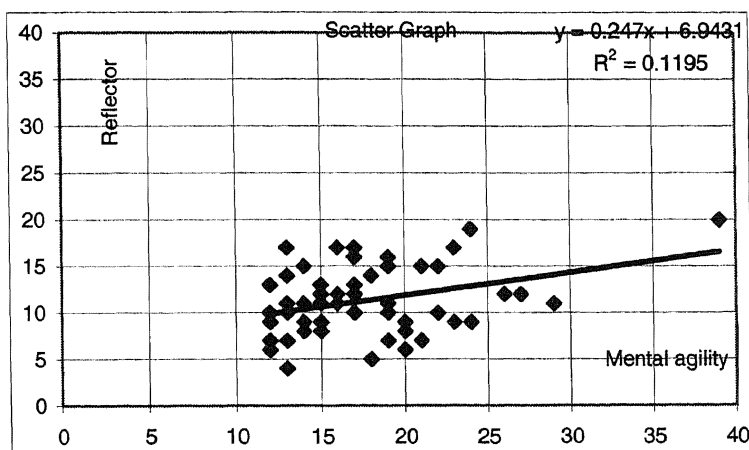


Figure: 7.2 Scatter diagram - Mental Agility-Reflector relationship

### 7.1.2 Inter-correlations: Meta-Qualities

Further perusal shows expression of statistically significant inter-relationship within the meta-qualities variables, a couple at 99% confidence level, and one relationship at 95% confidence level. They are:

Mental agility - Balanced Learning 0.358 (with  $p=0.009$ ) at 99% c.l.

Mental agility - Self-knowledge 0.322 (with  $p=0.02$ ) at 95% c.l

Balanced learning - Self-knowledge 0.514 (with  $p=0.00$ ) at 99% c.l

**Table: 7.2 Inter-Correlation Matrix – Meta-qualities**

		<b>Creativity</b>	<b>Mental Agility</b>	<b>Balanced Learning</b>	<b>Self Knowledge</b>
<b>Creativity</b>	Pearson Correlation Sig. (2-tailed) N				
<b>Mental Agility</b>	Pearson Correlation Sig. (2-tailed) N	.239 .088 52			
<b>Balanced Learning</b>	Pearson Correlation Sig. (2-tailed) N	.011 .941 52	<b>.358**</b> .009 52		
<b>Self Knowledge</b>	Pearson Correlation Sig. (2-tailed) N	.221 .116 52	<b>.322*</b> .020 52	<b>.514**</b> .000 52	

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

(Full SPSS version is appended in the Appendix J)

It is best remembered here that the original proposition of this framework was to use it as a tool for understanding individual quality potential, a first step before deploying further management development to an individual. This research adopted this proposition and used it to measure individual profile of the possessed meta-qualities, and constructed a score for every individual studied. Results now leads to a decision that three of four meta-qualities variables studied were closely associated, and may take up designated positions in a Meta-Qualities framework, if this framework to be considered as tool for profiling personal qualities of a manager. In this regard, further research is needed.

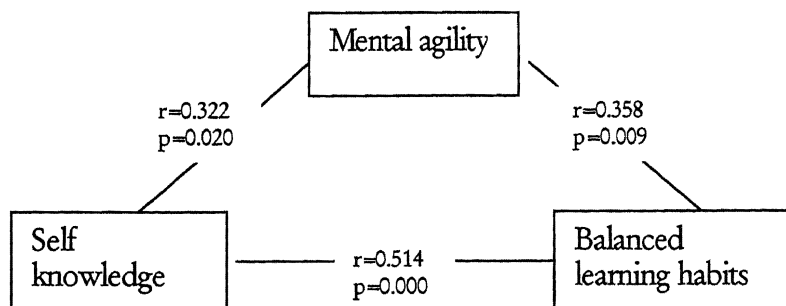


Figure: 7.3 Inter-relation among Meta-qualities

Looking at the probabilities, statistically it is correct to assume a positive relationship between self-knowledge and balanced learning habits ( $r=0.514$ ,  $p<0.05$ ) which is very very significant, and it is one definitely not by any chance, as  $p=0.000$ . It was found that mental agility is also associated positively with balanced learning habits ( $r=0.358$ ,  $p<0.05$ ), again, statistically significant due to a very less chance of occurrence,  $p=0.009$ . It was of interest to note that mental agility is positively associated too with Self-knowledge ( $r=0.322$ ,  $p<0.05$ ), statistically significant having a  $p=0.02$ .

According to Sociologist and Psychologist, on this benchmark of 95% confidence level, it could be sounded finitely that significant association between all three qualities exists. It now expresses that enactments to invigorate one of these variables through management development could largely lift the potential of the other two. If someone takes up only a single variable development in isolation, then promises exist towards synergetic infusions to happen. Further research may predict which quality of the three takes a lead if an order is to be ventured.

### **7.1.3 Inter-correlation: Learning Styles**

Results also found relationships within the four segments of learning style preferences. Production from Kolb's conceptual deliverances on learning cycle, and of Honey and Mumford contribution on learning style preferences, it was seen that those four variables of the learning styles are in an order. This result now provides strength to support that concept.

The degree of relationships found were as follows:

Activist negatively associated with Reflector,  $r = - 0.425$ ,  $p = 0.002$  at 99% c.l

Activist negatively associated with Theorist,  $r = - 0.329$ ,  $p = 0.017$  at 95% c.l

Reflector associated with Theorist,  $r = 0.606$ ,  $p = 0.000$  at 99% c.l

Theorist associated with pragmatist,  $r = 0.410$ ,  $p = 0.003$  at 99% c.l

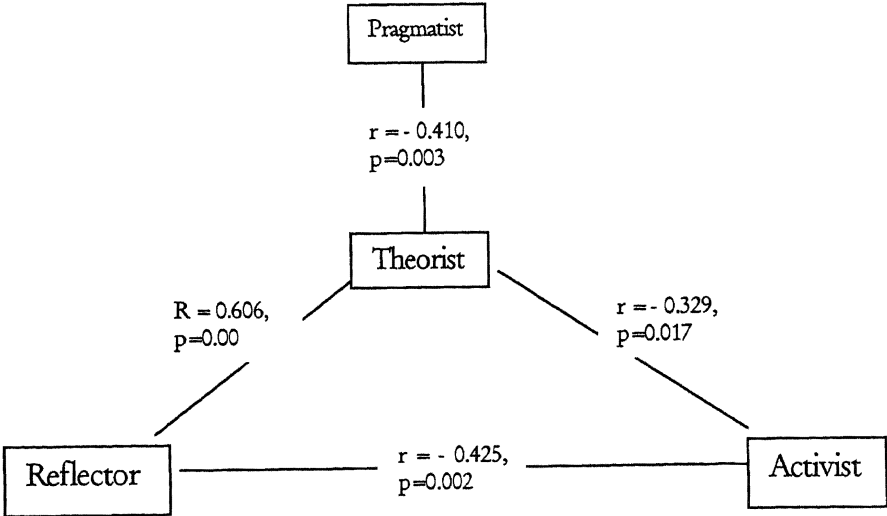
**Table: 7.3 Inter-Correlation Matrix – learning Style Preferences**

		Activist	Reflector	Theorist	Pragmatist
Activist	Pearson Correlation Sig. (2-tailed) N				
Reflector	Pearson Correlation Sig. (2-tailed) N	-.425** .002 52			
Theorist	Pearson Correlation Sig. (2-tailed) N	-.329* .017 52	.606** .000 52		
Pragmatist	Pearson Correlation Sig. (2-tailed) N	.142 .316 52	.024 .883 52	.410** .003 52	

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Surprisingly it was found, that Theorist style is associated with all other styles. Pragmatist is only associated with Theorist. Activist is negatively associated with Reflector and Theorist. Theorist is negatively associated with Activist and Pragmatist, and positively with Reflector. The significance here is that the Theorist style apparently related or associated with all three styles. On the contrary, Pragmatist is the only style that is only related to Theorist ( $r=-0.410$ ,  $p=0.003$ ) positively.



**Figure: 7.4 Inter-relation between Learning styles preferences**



7.1.5 Global score: The rationale

Considering the fundamental paradigm of this research, it is necessary to set a single score for each unit of analysis using the respective variable scores. This intends to provide a single score for learning style preferences and a single score for meta-qualities. In Honey and Mumford’s theory, all four sub-segments of learning style preferences take an orderly position. It could not be laid in any other order other than how it was claimed, which fits with learning style theory. The four sub-variables of the meta-qualities do not take any particular orderly position. As per the Burgoyne and Stuart contribution, these are independent variables of qualities in it’s own merit. These qualities were treated as independent of one another, not depending on other three qualities. It could take any order. No literature found to neither support nor reject this claim. Literature search have not provided any knowledge contrary to this presumption too. Therefore, each of these four meta-qualities sub-variables could take any position on a given grid. This may cause an argument flaw but not prompt any technical flaws when deliberating a single score.

The statistically gauged single score for both meta-qualities and learning style preferences is known as Global Score. Each unit of analysis could be identified on a scale, using this global score depicting its learning style preferences and meta-qualities. (See appendix G-2.) (Statistical process used Z-scores and standard deviation). Standard Deviation here plays the role to identify the each unit of analysis, camouflaging a score on the data set in terms to corresponding MQ and LSP. Once this score is culminated, it is possible to measure the distance of each of the unit from the centre, with centre score equivalent to having a standard deviation of zero. Investigations found no correlation between Global Scores of meta-qualities and learning style preferences, and the null hypothesis  $H_0$  of no association is accepted.

Correlation									
	Activist Z	Reflector Z	Theorist Z	Pragmatist Z	Global MQ	Creativity Z	Mental Agility Z	Balanced Learning Z	Self Knowledge Z
Global LSP					-0.0804	0.0896	-0.0184	-0.0693	0.0791
Global MQ	-0.0949	-0.0244	-0.0263	-0.0684	1				

Table 7.4 Correlations - Global Scores

7.2 Can Learning Style Preferences be used to read Managerial Qualities?

So far research established a degree of relationships between mental agility (one of meta-qualities) and reflector (one of learning style preferences), and selective inter-relationships among three of meta-qualities as well as among learning style preferences. (see Figure: 7.2, 7.3)

Now the attempt is made to develop an “index” useful to read a unit’s meta-quality scores in terms of its learning style preferences. Please note that a global score (in standard deviation) has been already developed for both test variables. Research held that meta-qualities determine the learning styles preferences, and having an association it is found logical to construct a measure to read the meta-quality of a unit through respective learning style preferences. Figure 7.5 below depicts the dispersion of the global scores of meta-quality in term of learning style preferences of the test data.

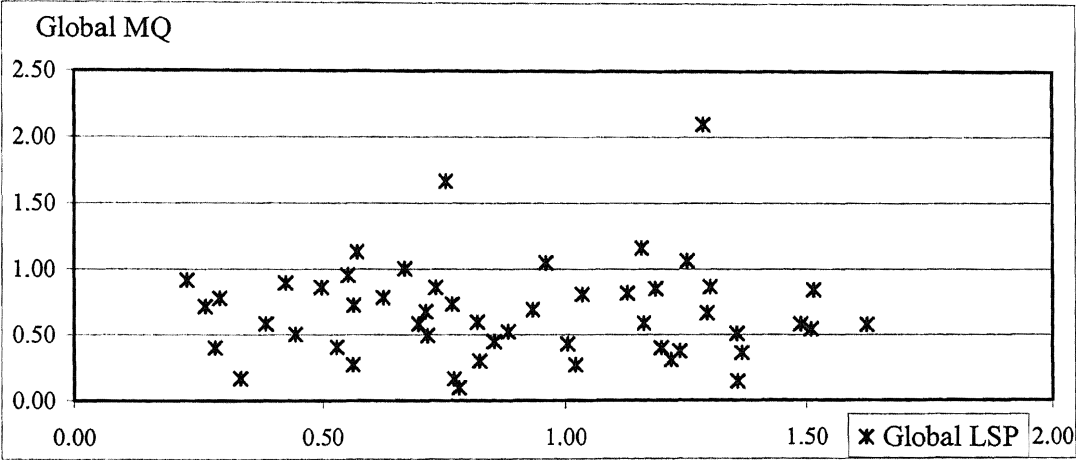


Figure: 7.5 Dispersion of MQ in term of LSPs (Global Scores)

It appears that most of the Global scores of learning styles preferences are within 0 and 1.0 standard deviation of the Global scores of meta-quality, but quite dense within 0.5 and 1.0 standard deviation. This score helps to position each unit of analysis in relation to the centre, in an order. Further, this format could assist to

determine the spread and concentration level. It was noticed that if a reader is based on learning style preference score, then the meta-quality scores fall either side of the zero LSP score. This raises a concern for reasoning, and needs to be researched. What plausible now is that for an ascending learning style preferences score, there was evidence to believe that MQ score is dropping mostly, and when the LSP is positive the MQ scores tend be either negative or positive.

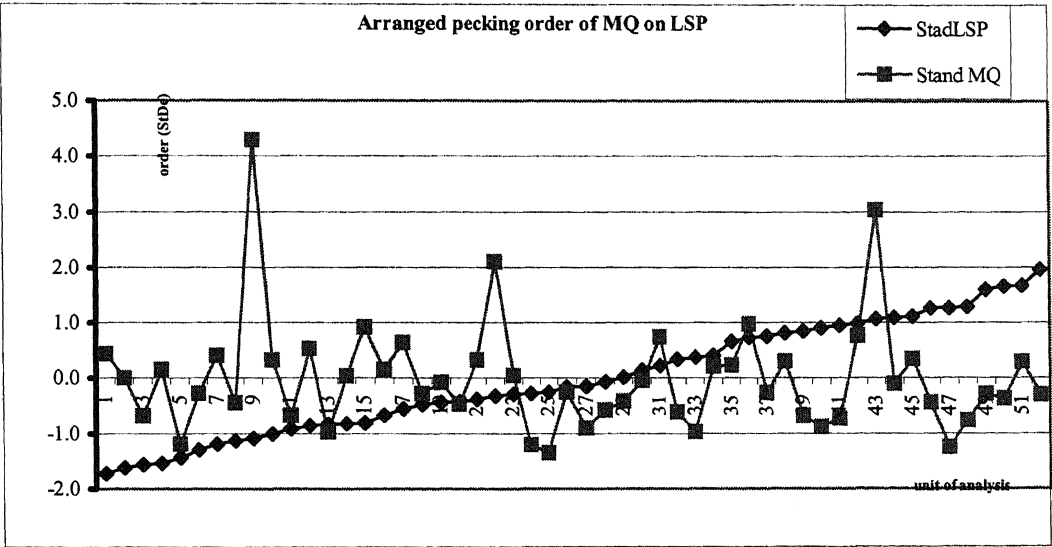


Figure: 7.6 Global MQ read to corresponding Global LSP

It is argued that learning style preferences should predict meta-quality. See Figure 7.6 and 7.7. There is no set pattern to theorise this without any further study. It could be concluded on this development that for an increasing learning style preferences, there is evidence to note inverse strength in meta-quality scores. Also, the degree of variation appears to be inelastic with movement of change. This outcome supports the research paradigm to a certain extent, where a manager who have scored high learning style preferences due to his potential do not need management development and therefore, a manager who do not need management development tend to score low meta-quality score.

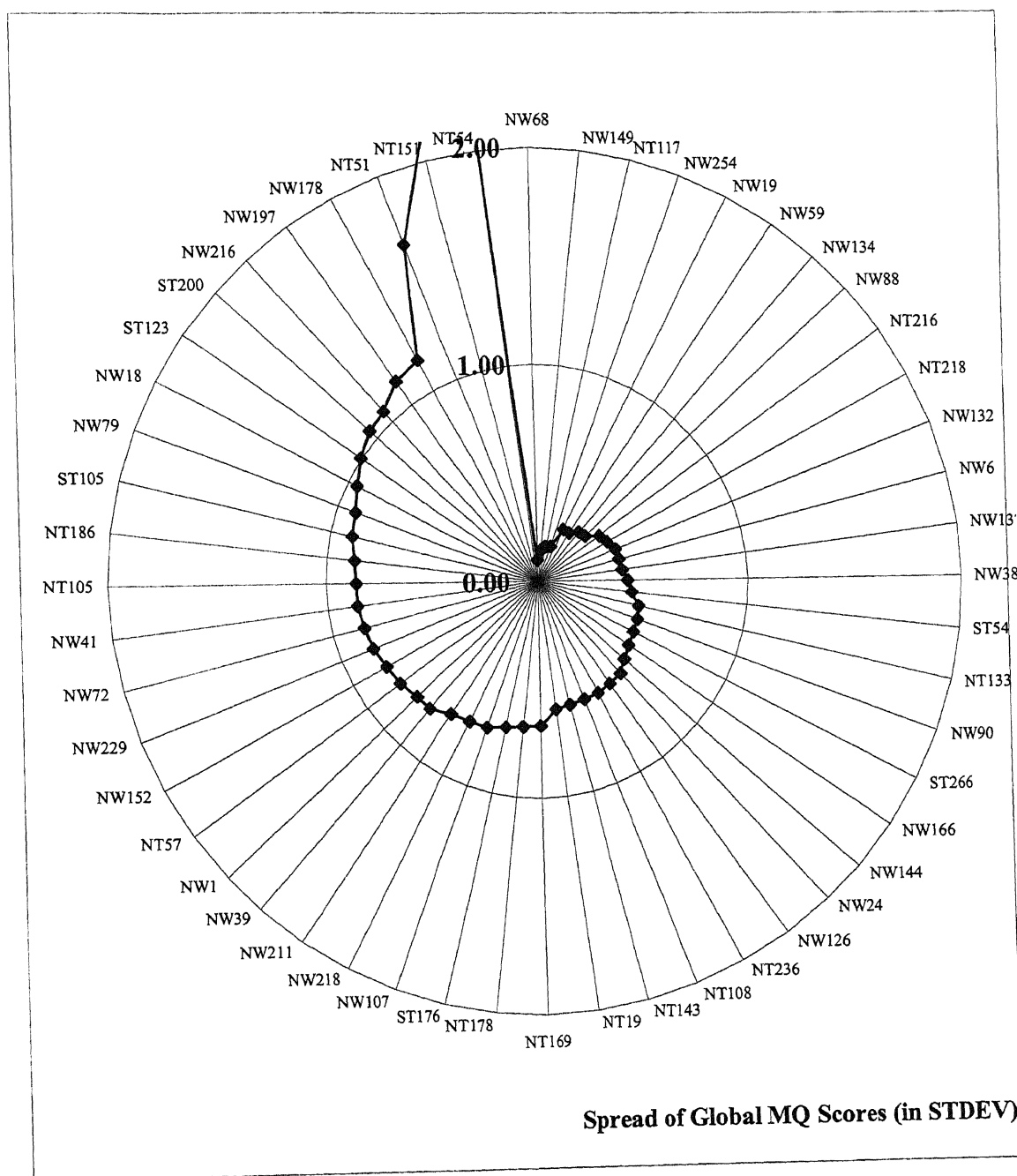


Figure: 7.6. Spread of Global Meta qualities Score (in ascending order)

### 7.3 Relationship between high and low groups.

Observed from the figure 7.6 earlier that when ascending order the Global score of the learning style preferences, the low end of the score get a  $-1.72$  standard deviation (below the assumed average person who get std dev =0.00), and the highest score get  $+1.96$  standard deviation (above the average person). The group divided into two, low scores: below the average ( $n=28$ ) and, high scores above the average ( $n=24$ ). If correlation is check for both groups, it is of  $r_L = -0.121$  (for the low group) and  $r_H = -0.034$  (for the high group) respectively.

Significance of the variation (of these two groups) is checked using Fisher transformation (to test for the significance of the difference). Along the theoretical guidance of Edwards 1964, Black 1999 and Kanji G 2000, and the first test hypothesis, no differences between the low and high group:  $H_0 \ r_L = r_H$ . Using MSExcel worksheet function it was noticed at 0.40135 with  $\alpha = 0.05$ , and  $Z_{critical} = 1.96$ , and that  $z$  value is lower than the critical value. Therefore, it is concluded not to reject the null hypothesis of no differences.

In this juncture, a second test explored to check whether  $r_L$  or  $r_H$  is equal to zero, using another test hypothesis  $H_0$  that  $r_L = 0$  and  $r_H = 0$ . Test fails to support any decisions other than accepting the null hypothesis of no difference.

It is now possible to say that when  $r_L = -0.121$  the population coefficient zero lies between  $-0.47$  and  $+0.26$ . When  $r_H = -0.034$ , the population coefficient zero tend to lies between  $-0.43$  and  $+0.37$ . Counting on these calculations we could say that there is 95% probability that value of  $r$  is not significantly different from ZERO.

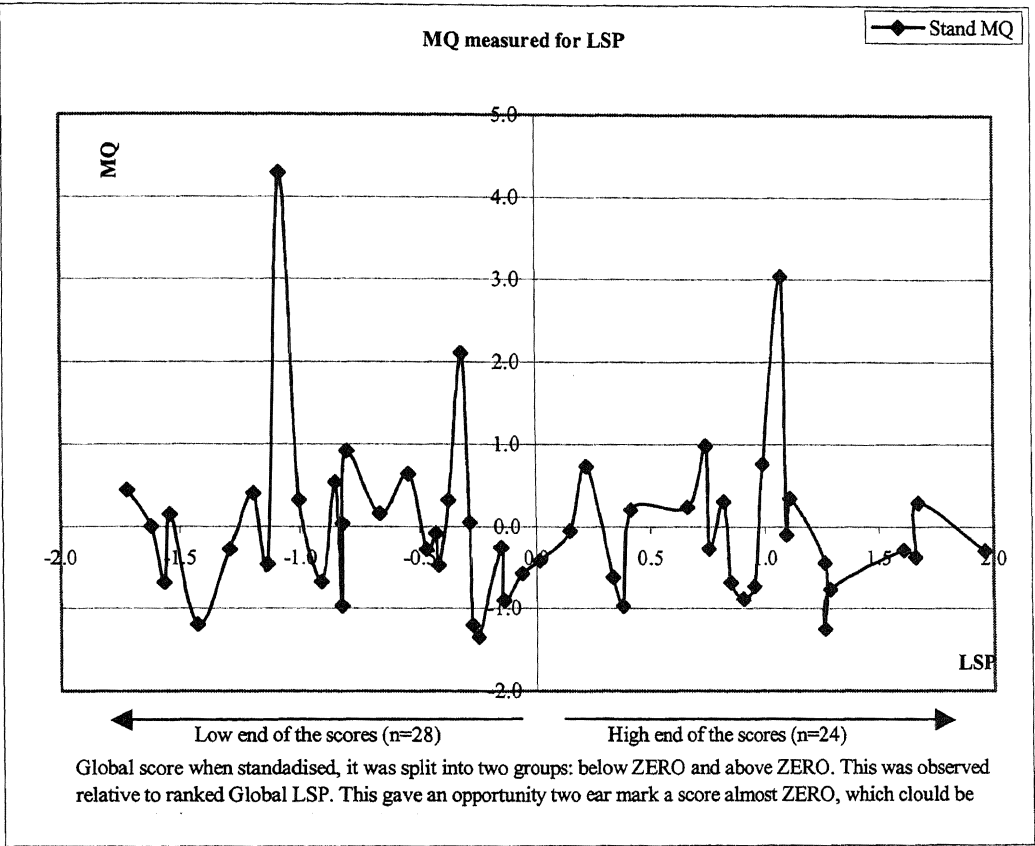


Figure: 7.7 Low and High Score groupings

It is assumed, though the normal distribution of the group show a different relationship strength (numerically), a similarity may exist in the two groups: the low and high scorers, and it is necessary to understand the interesting combinations found: Mental agility and Reflector, The membership in the low LSP group were those who scoring high MQ scores, and are in need of management development. Alternatively, memberships in high LSP group were those who score low MQ scores and require less management development.

Correlation	Low Group	High Group
Mental agility & Reflector	0.235	0.48

Table: 7.5 Degree of relationship of the identified combination

The degree of relationship found is significantly strong for the higher group compared to the lower group. Alternatively, more the development improves a person's profiles, the relationship come to exist. It documents some belief even though a smaller sample is tested. Further in-depth research in the future becomes necessary in this area.

#### **7.4 Can an average learner be known as Balanced Learner?**

Honey and Mumford indicated an assumed concept - 'balanced learner'. Their arguments on learning style differences in individuals, and in groups were undisputable. On this platform, questions were poised: who is a balanced learner? Who could be seen as a balanced learner within a given group norms? Can there be a point of reference to label someone as a balanced learner (statistically)?

Theoretically, there is chance for some one to score equal numeric score on all four variables. Conceptually, each of the four style variants read varying strengths for a given score if a norm is computed for that dataset. It is depending on the range of the scores polled by the individual and the respective individual scores polled for each variant. Both general Norms (Honey and Mumford) and the calculated norm of the sample do not permit someone to score same numeric score for all variants, and to be nominated as a balanced learner. Author's self-verifications from Honey, Mumford, Allinson, Hayes as well as Reynold all indicated that the "balanced learner" concept yet to be confirmed.

It is seen from statistical processes applied to the data, the standard deviation of this sample size (when normalised) shows both positive and negative spread. (With respect it is stated that a standard deviation of a distribution of sample was asymmetry, therefore it was normalised using the standardised function (using MS Excel.) It aids to conceptualise an "ideal" average person who could be found through this process. The position which satisfies 'zero standard deviation' in this arrangement could be statistically observed as the 'ideal' balanced person'. All other units are taking positions either high or low than this average, and falls between  $-1.72$  and  $+1.96$  sd.

The global score of this position may be treated as the ‘Global Score of a Balance Learner’. It is incorrect to step down further below than Global Score, and to use ascribed individual scores for this “ideal position” as that value could be obtained by varying combinations. But, it is difficult to put two different scores in one position unless both satisfy the formal requirements. Therefore, the global score of this “ideal” position legitimately be called as the Balanced Learner until another better proposition is found. Considering this option, it was observed from the available data set that an “ideal Balanced Learner” be having a global score (learning style preferences) within the range of 0.853 and 0.882, or taking a place within –0.064 and 0.013 standard deviation (when normalised). The current working data do not explicitly illustrate a position with zero standard deviation. Academically such a position exists within the data to figure out the attributed raw scores contributing a zero standard deviation. Therefore, the very first location nearer to the zero position (on either side) is accepted as boundaries for the data studied:

Record	Activist	Reflector	Theorist	Pragmatist	Global Sore	Standardised Score
ST54	12	07	09	13	0.853	-0.064
NW166	11	09	08	09	0.882	0.013

**Table: 7.6 Balanced Learner profile (best fit)**

The theoretical general norms of the learning style preferences were illustrated in chapter 5 (Table 5.5) and the calculated norm for the NHS managers was illustrated in chapter 6 (Table 6.23). If the balanced learner profile (table 7.5) is compared with the general norm and NHS norm one could find controversial observations. Specifically, balanced learner profile does not support the norms. The raw scores do not mean any sensible information. It is quite difficult to read back and to suggest what scores a balanced learner should be having for individual styles. Alternatively, some one having a low or high score for each of the variants technically need not be a good or bad or even a balanced learner. This argument is not challenging a weak or



strong style at all. It leads to admit that the only way to locate a balanced learner (at this moment of time and knowledge) is to adapt the process used in this research and to recognize who ever score a zero deviation or the closest to be the balanced learner.

The next chapter formally presents the conclusion reached at this study and provide necessary recommendations for future study in this area.

## CHAPTER 8

### CONCLUSION AND COMMENTS FOR FUTURE RESEARCH

The author analysed the dataset and presented the results in chapter 6, and discussed those enquired relationship aspects in chapter 7. This chapter 8 summarises the study and present conclusion to the current work, and attempts to set a stage for further academic research.

#### 8. 1 Learning Style Preferences for NHS Senior Managers

The Research measured the learning style preferences of a sample of NHS senior managers. Details of which were presented in Chapter 6, Table 6.23. These results were compared against with comparable (published) General Norms (Honey and Mumford 1988) and the author observed the following:-

- no remarkable deviations observed against the original Norms.
- the best 10% group of the norm of the Activist style appeared improved into a more narrower band in terms of General norm,
- significant to note that Pragmatist and Theorist styles norms remains the unchanged.
- significant variations cannot be commented on the standard deviations for both the original and current norms.
- the middle order scores (the middle 40%) turns out to be widened to accommodate more memberships, a feature observed.

Most significantly, the learning styles preferences concept found to be holding good even after two decades since first prescribed. These results add value to the current research as well as, endorse the Learning Style Questionnaire as a valuable instrument for such purposes. This validity influences the author to propose the following norm for NHS senior managers. This NHS senior manager norm (Figure 8.1) was a product of this research work, and the published General norm (Figure 8.2) both appear below.

Best Score LSPs	Top 10%	Next best 20%	Middle 40% a) Mean	20% of bottom half	Lowest 10%	b) Std dev
Activist	15-20	11-14	8-11 a) (mean 9.7)	6-7	0-5	b) 2.95
Reflector	17-20	14-16	9-13 a) (mean 11.1)	7-8	0-6	b) 3.69
Theorist	17-20	15-16	10-14 a) (mean 11.58)	7-9	0-6	b) 3.26
Pragmatist	17-20	15-16	12-14 a) (mean 13.7)	10-11	0-9	b) 2.53

Figure: 8.1 Learning Style Norm - Senior NHS Managers (based on research data n=52)

The marginal inconsistency observed might have been influences of the sample size, the nature of the work environment, and the nature of the organisation in which the sample managers come from. It must be noted that all subjects measured come from one state institution located in varying geographical locations, compared to the General Norm that comprises subjects from assortment of environments. Further, on a moral boost note, Mumford provided mean results of Board Level directors (see appendix H) from one of his previous study. It was placed along with the NHS mean and the General mean, as in Figure 8.3, and some inconsistencies observed too.

Styles	General Norm (mean) (n=3500)	NHS Norm (mean) (N=52)	Director Norm (mean) (n=70)
Activist	9.3	9.7	8.1
Reflector	13.6	11.33	12.6
Theorist	12.5	11.58	13.9
Pragmatist	13.7	13.7	14.2

Figure: 8. 2 Illustrations of LSP Norms

Looking both the Director norm and the NHS Manager norm, (both board level results) all four styles vary. This is due to the work organisation and environment factors rather than personality issues. Other wise, it must be more or less similar to that of the general norm. The general norm variation is acceptable because the sample includes all form of professions and levels of management. Where as NHS and the Director both include similar natured subjects only (all at board level). Significant comment could be made on Activist and Theorist.

## 8. 2 Work Settings

The work settings of the subjects believed to leave weight on the conclusion. Over a half of the sample managers were in occupation for less than five years, and another thirty five percent were less than ten years but over five years of service in the position. A forty percent of these managers are of 40-50 years and thirty five percent are in the 50-65 years of age. Ten percent of these managers sampled have joined the service from non-health related environment, bringing in new and varying management knowledge compared to the rest surveyed. The rest were from the Health Service itself, and may have been immune to such attributes. The managers joined the service, of which sixty seven percent with academic qualification (university based), and a fifth with vocational qualification (profession related).

A significant observation was that a seven tenth of the sample had subscribed to non-qualification linked management development. Among those subscribed, little over a third, (36.5%) found development to enhance their job performance, another three tenth enjoyed it for the employability reasons. Only a fifth admits that development is for personal development purposes.

When observed the meta-qualities, a twenty six percent voted for mental agility and a thirty nine percent voted for creativity. Also, detected that a thirty five percent failed to vote for any of the four meta-quality variables examined. Literature documented that senior managers at board level should have meta-qualities. Current results disobey such propositions. Evidence favours administrative skills rather than managerial skills with board level managers in this sample. Just over a half accepted that changes in the future as inevitable, where as a quarter of the sample considered

the future change requirements in the work area to combine with that of personal development. A third of the subscriptions to development had no such considerations.

There is evidence to NHS led management development that was aiming to develop performance related qualities more than the examined meta-qualities. There was evidence to support that a remarkable two fifth or more were unhappy with the kind of development exercises facilitated by the NHS, and another two fifth advocating for a structured management development exercises over medium term. Majority of the managers found to possess average qualities, indicating the necessity for further developments to improve meta-qualities (see table 6.19).

It was noticed that very few managers gaining membership in the best 10% band. Half of the sample managers occupied the middle 40% band on the norm, all four styles indicating the necessity for improvements. The Learning style preferences concept does not warrant developments as that of meta-qualities, but only indicates the status of the subjects, which was average at the board level. (see table 6.23 and 6.24).

### **8. 3. Relationships.**

The research study supports favourably to conclude that there was relationship between a meta-quality variable and a learning style preference. There were also inter-relationships in meta-quality variables and learning style preferences. Further it was found that strength of the relation becomes stronger with better learning styles. (see Table 7.6)

Based on the results, it is concluded that when a manager possess commendable level of managerial qualities, a relationships with the learning style preferences exists. Alternatively, if any managers were found in need of management development to improve their meta-quality condition, such managers will not have any significant relationships with learning style preferences.

## 8. 4 Balanced Learner

A statistical approach apparently suggested a model format. It was concluded that the Balanced Learner Profile would have standardised score of Zero through the process for a sample's learning style preferences. According to the data, to be a balanced learner in the NHS Senior Manager sample should be scoring the following:

- a standardised score between  $-0.064$  and  $0.013$

or else,

- a global score between  $0.853$  and  $0.882$

Taking into consideration of the sample size, it became difficult to establish an accurate balanced learner, but this task becomes possible to determine the best-fit approach at this time of knowledge and facility.

The balanced learner concept may also assist to measure meta-quality using the learning style preferences. The establishment of relationship between meta-qualities and learning style preferences should have provided a facility to measure one variable using the other variable. This method should assist measuring the Learning style preferences and use to index one's meta-quality. It was discounted due to an inability to relate each other scores in constructive terms using the available data. It failed because the ascending or descending meta- quality score failed to align it with that of learning style or vice a versa. It is concluded that further research is needed to this effect.

## 8. 5 Recommendations

Current research found that the existing General Norm of the Learning Style Preferences to be good and valid. It is recommended that further research becomes necessary in this area, targeting sector wise norms to alleviate impetus of the work-setting characteristics. It is crucial to understand the sector rather than profession variations of subjects, in the context of management development today. Providers may see this as uneconomic, but management developers need to know their

participants' profiles. Arguments may be fielded against an industry wise understanding, but care is necessary as one industry may contain subjects both from public and private sponsored institutions. For example senior managers conditions governing their work and management development at the Fire Services (apparently varies) to one from the NHS Trust or at Inland Revenue or at the Postal Service. It must be considered that a Senior Manager at any work-settings needs to direct the institution into the future; to do these managers should have the endowments and the portfolio of professionalism to perform.

Research used an instrument, meta-qualities model for the first time, originally developed to assess an individual's management development requirements to present a Meta-Qualities Norm for the sample. This approach needs to be validated, as there were no previous similarities. Future research with a larger suitable sample is inevitable in this area.

Relationship observed between the sub variables of both meta-qualities and the learning style preferences is: Mental agility and Reflector, The author believes that this research study has taken interest in certain areas where no previous work done. It is true that the conclusions arrived here could have had more weight and value provided a larger sample was available. Considering the nature of the environment, the NHS in which the conclusions were arrived with a 15.7% response rate is appreciated. Today, most public service managers are working under severe work pressure. In this condition, a senior manager's life at work along with commitment to management development is commendable.

## 8. 6 Review

It is found imperative to meticulously round up the results and recommendations, and those conditions presumed governing the outcome, both results and conclusions. Also, to circumvent the non-significance aspects of this research outcome. This research results were regulated by the following factors, having had either primary or secondary influence on results and conclusions. The factors are classified in groups as:-

1. Research Methodology: the process of data collection and compilation, the design, the strength of the sample and the instruments.
2. Research Environment: organisational setting, target audience, condition governing the response including the time of the response by the respondent, state of mind of the respondent, professionalism in responding, and quality of responses.
3. Response drivers such as self-interest, curiosity to understand rudimentary level personal profile, envisage obligation, admiration for requests and supporting mentality towards researches.
4. Paradigm of the research, the pretexts, notions and supposition fielded by the governing concepts of management development.
5. The diversity of managerial conditions circumventing the emergence of non-significant outcome, contrary to the research paradigm.

#### **8. 6. 1. Research Methodologies:**

This research has a necessity to collect primary data. Therefore, it was decided to use questionnaires to survey by post and to collect data from the population. The population was the senior board level managers in the NHS Trust Regions. It is necessary to discuss the influence the research methodology could have on the results and conclusion.

The design aspects had been discussed in detail in sections 4.7 and 5.1 (pp 57 & 64) previously. It received responses from the population, without author's any direct involvement. The population was selectively identified (900 managers). The sample size turned out to be 52 (valid) out of 57 responses received voluntarily. Apparently, since it emerged as voluntary responses from the population, it was accredited as representative to the population surveyed. It is very difficult to rule out that having more than 52 responses could enhance the current supposition. Statistically, larger sample sizes provide more accurate results compared smaller sample sizes, and the benefit of this doubt was vested accordingly.



Unlike other methodologies (i.e. Interview, observation, focus group) this method is built on trust and honesty. The validity of responses expected to (sometimes) dilute the results for reasons: wrong person responding or different post holder standing-in or new appointee responding. The instrument used should have reached the unit of analysis (specifically) by the name and post, and set to prevent wrong post holder/person responding to it. The postal system effectively returned those questionnaires to base, when an addressee is not available. It aided to confirm endings to the sample, and the results speak of the population. Therefore, these presumptions validate the responses.

Data collected were at ordinal level: scale based and count of events. Such data were normalised using Z-scores. Z-score provides a generalised standard for comparison, and the advantage is that Z-scores of a variable are now directly comparable with Z-scores of different variable. Further, Z-score makes a dataset to normalised distribution for further complex analysis.

The methodology practices a correlation design to research, finding the relationships between Managerial Meta-qualities and Learning Style Preferences. In social and psychological research, the term correlation confuses matters. The term being used in statistical procedures (coefficient of correlation indicates direction and degree of strength) and at other times indicates the type of research design. This research uses Coefficient of Correlation, and not having a high coefficient or a Zero does not necessarily mean that there is no relationship, as well as, likewise decision is not correct. In Psychology context (Aron *et.al*), a larger coefficient is = 0.50, a moderate = 0.30 and a small = 0.10. Also, getting a coefficient more than of 0.40 using human sample is difficult. Technically, having a low correlation is due to low reliability of measures and restriction of range. Having larger samples could definitely provide better and more accurate results, not necessarily a higher coefficient, and could have eliminated the restriction effect.

Author rules out the issue of Chance, that the results were by chance, as the data obtained by responses were not deliberately selected to represent the population through any one means. In fact, it had to be accepted as the true representation, since

responses were inherited. There is no reason to believe that the entire population would not have answered, given the necessary incentives. Having such full responses may have strengthened the results.

Academically, having two variables and obtaining a liner relationship between the two may have made to believe either of the variable must have had some effect on the other, or may cause an effect on each other or else there would have been some thing else that have caused a relationship between the two. Not having a liner relationship, and a direction does not make to judge that there is no relationship at all, or a relationship may be feasible and to construct clarity, larger data need to be computed.

### **8. 6. 2. Research Environment:**

An environment in the context of this research means, “those combination of actors who are having a role to play in the process of research, and have (possibly) had influences on the outcome”. These actors mainly are as follows:

- Organisational setting,
- Attitude of the population,
- Conditions governing the responses,

In early chapters profound discussions established the nature of the organisation selected and associated matters. In this part, only those influences having effects on research outcome are reviewed, and it is essential to appraise those influences in order to validate the conclusions.

The population and sample both were managers (with board level director responsibilities), the organisation being a state (public service) entity, and there remain restraints embedded on managers exercising their free opinion and initiatives. The political processes overseeing senior management functions in the NHS environment, and the statutory mandate of Citizen Charter both impose strain on NHS manager-freedom to opinions. Research has evidence to be presumptive that some managers (in average 5 – 15 managers in a Trust) have had taken cautious steps

by not replying the research questionnaires, by taking cover under the institutional policy (e.g. "It is the policy of the .....NHS Trust that managers to refrain from participating in any form of Research Questionnaire. Therefore, we regret our inability to complete your..."). Even though this research questionnaire draws individual opinions (clearly external to the work setting), it was denied. This could have diluted the otherwise potential/significant results.

Author, matched the norms of the learning styles preferences for current sample (n=52) with that of Mumford's sample (n=70), noticed significant differences – (See Figure 8.3 page 124). The current research scores appear low for all three styles except activist. The activist scores found higher than that of Mumford's proposition. It could only be explained that managers are suppressed by statutory and institutional pressure to exercise manager-freedom, which limits the liberty to development. There may be pressure to abide by guidelines, which appears affecting all three styles at the NHS. Explanation for the high score of Activist observed is that board level managers (at NHS institutions) are in fact not practicing the obvious corporate directional functions (or not allowed to by their superiors), but appears more into executing administrative activities set out by third party (the statute). This assumption was supported by those responses in part 1 of the questionnaire. (Sec. 6.1.6 page 84). It is best assumed that NHS managers at Board level are in fact not fulfilling appropriate duties. This may have a bearing on the results. It is significant to unexpected outcome.

The conditions surrounding the responses do influence the outcome. Where was the manager at the time of response? or What time of the day the response happen? or What was the propensity for interference-free responsiveness? or What was the mind-set of the person when responding? Any of these could have an influence on the kind of responses received. Some managers have disciplined themselves by organising their work based on its importance, where some managers assign a value to the type of work that needs to be completed. Some managers may attempt doing more than one task at a time, or else attempt to split locations to do different work. The research does not wish to cause a concern on these aspects, but accept the responses at its face value and rationally work out the outcomes. There is evidence to believe that 25 % of

the sample managers were less than 40 years, and 75% is over 40 years of age. Also, found 56% of the managers were having less than 5 years of service and 44% having more than 5 years of service in the NHS. Provided, that the 25% (of less than 40 years) falling within the 56% (less than 5 years of service) and they turnout to be the sample responded, then the results subjected to differ from expectations. If that is the case, then, having the 75% (over 40 years of age) and falling within 44% (over 5 years of service) becoming the respondents could have significant results, and this may be within the scope of the paradigm or concepts applied. It was discussed earlier, under the characteristics of meta-qualities the experience is part of it.

### **8. 6. 3 Drivers instrumental for Response:**

Variety of drivers could be found steering these responses. A manager may have responded by self-interest (motivation to seeking an understanding of the self-development needs of one). At rudimentary level, (given the opportunity), the mental strength together with their professionalism brings an interest to understand one's own profile. The research instrument could have induced the participants for a response along this line. The respondent's knowledge (on the subject matter) could have triggered the response too, as most of today's managers possess relevant qualifications (Section 6.1.3 page 75).

Managers completing the questionnaire (with self-interest etc., or by curiosity, or by specialist knowledge) will produce valuable data for deduction, where as those responses coming as part of the routine job may not always valuable. Earlier, the length of service of the managers within NHS has been discussed. Such can have significant effects on the results. A senior manager may respond better with his experience compared to a manager with less than 5 years experiences. Author value some senior managers' contributions that had supported this study at the Pilot stage, for their encouragements to the necessity of understanding the relationships studied. It eventually expected to contribute to successful management development. If the current responses were truly valuable, then the results were very precious. Considering the fact, the responses were possibly happened by chance and are not true, and then the results have significant effects to reveal. Considering the comparison of norm (Learning Styles Preferences Norm – Section 6.3.4 page 103)

the results was virtually valuable as original norms (pronounced 2 decades ago).

Therefore, it supports the belief, that this occurrence was in fact not a chance and data is good.

#### **8. 6. 4 Rationale and paradigm**

Another significant factor that could have influence on the outcome is the paradigm governing the research. There were two sets of beliefs used to construct the research paradigm: - the learning style preferences (Section 2.2) and the meta-qualities (Section 2.3). The paradigm evolved linking these two beliefs, converging the learning functionality of the managers at senior level. Though, the beliefs are in fact correct and vividly accepted, it may not have spread its wings over the population studied, and not fitting with the paradigm. Therefore, the research outcomes could disprove the predictions. Alternatively the paradigm is in fact correct, but the rationale of the paradigm and the approach taken to develop the test both were not supported by the results. In such cases, the results were not valid, which could ruin the validity of the conclusion.

In the discussions, it is read that the conceptual values of each variable apparently support both the paradigm and rationale. What not found was that the population (for some reason) failed to demonstrate the correct features of the variable? It is observed that certain propositions (fielded by the academics and researchers as involved in the original paradigm), were unfound in the current studies. This research found (Section 6.1.6 – page 84) that senior managers in fact failed to recognise the important qualities, i.e. Balanced Learning Habits and Self-Knowledge. Further, found that managers were more into administrative activities rather than directions. This information is contravening with the original concepts fielded by the paradigm. Therefore, there were unexpected results, and those appear significant.

#### **8. 6. 5 The relationships**

The research paradigm that sets pace for this study was spelt earlier. (See Sect 2.8.1). It proposed to understand relationships between managerial meta-qualities (Creativity, Mental-agility, Balanced Learning Habits and Self knowledge) and the learning styles preferences (Activist, Reflector, Theorist and Pragmatist).

### **Mental agility & Reflector**

Revisiting the concepts of the above related variables (see Appendix D, E),

- a manager should be generally intelligent, and have those abilities and features as described within the concept of mental agility, and
- seen that the essence of a reflector is to be able reflect on experiences, and observe them from various angles and diverse perspectives

The research found that the sampled managers demonstrating those attribute quantitatively satisfying the relationship. Research supports (in today's managerial arena), among those surveyed board level managers some of them found possessing respectable strength of both variables. In an academic context, managers found possessing features of such relationship were capable of reflecting on matters of interest quickly because they are knowledgeable and intelligent, and had the potential to respond rapidly to a situation correctly. On the contrary, those managers fail to fulfil such features may be those who need either management development of some kind and or having to reassess their learning style preferences that support their development.

#### **Inter-relationships within meta-qualities. (see Fig.7.2.2)**

In section 7.1.2, author recited on inter-relationships found between three of the four meta-qualities. For reasons unknown, the very popular quality, creativity found to be distinct from other qualities, as well as with any of the learning style preferences. Thus remains exceptional, also aids to assume that creativity could be a sovereign quality by its attributes, and to accept that creativity is a quality that could be cultivated or bolstered in seclusion, within the management development context.

Research found a positive relationship between mental agility and balanced learning habits ( $r=0.358$ ), balanced learning habits and self-knowledge ( $r=0.514$ ) and self-knowledge and mental agility ( $r=0.322$ ).

- mental agility is all about intelligence, rapidly switching ability between issues, simultaneous multi lateral thinking as well as viewing an issue in whole rather than of its component.
- self-knowledge is about having sufficient knowledge on performance factors and their influences on performance, self-awareness of perceived goals, goal related information and factor influences on goal achievements. It permits managers to generate theories and concepts that were practical, based on one's own experience, which applicable at different time and place.
- balance learning habits in essence is all about having self motivated independent learning ability supported by self control, the ability to gain the correct precision knowledge without an external or outside prescription. It generates abstract thinking and possibly concrete practice through generated theory.

Learning from such triangular (positive) relationships it can be said that balanced learning habits facilitate self-knowledge to a manager, which in succession delivers mental agility to perform (in real time) more quickly, and also to deploy a decisive solution as required. It makes the manager more superior to less successful managers.

#### **Inter relationship with learning style preferences.**

In section 7.1.3 author distinguished the relationships found within the learning style preferences. Research posted positive relationship between theorist and reflector ( $r=0.606$ ) and theorist and pragmatist ( $r=0.410$ ).

Research also found negative relationships between activist and theorist ( $r=-0.329$ ) and activist and reflector ( $r=-0.425$ ).

A significant finding was the lonely relationship between pragmatist and theorist, compared to other distinctive relationships theorist had with all other style variables. Contextually, activists are poor theorist, they rush to put an idea into action at once,

enjoy doing something for the first time, and they are not sceptical or biased but having an open mind. They are less thoughtful of theorising their experiences for the future, but go into innovation-like new task every time. Therefore, chances of finding an activist to be also a theorist are academically small. The research finding provides support to such understanding, by having negative relationship.

On a varying tone, theorist were who adapt and integrate observation and experiences into complex but sound logical theories; think through problems laterally to aim more perfection; and keen on principles, logic and rationale. Such attributes will make reflection more viable with a theorist. The research findings support this by indicating a positive relationship between reflector and theorist. The stronger a person with theorist style, becomes a good reflector as having sufficient resources to stay back and ponder on an issue before quickening to decisions. They are cautious and thoughtful when arriving at conclusion. This belief is backed by the negative relationship between activist and theorist as well as activist and reflector. A pragmatist holds resources to try out new ideas, theories and techniques to see if they workable in practice. They are more of down-to-earth people. To do this, theorist style facilitates with abilities for theorising or else to learn to set hypotheses. Research results positively to accept that theorist related to pragmatist.

The surveyed managers having such relationships may hint several conspiracy theories academically. There is substantiation to believe that surveyed managers having limitations to freedom of action and decisiveness more than being mere activist. Being activists, they were too much into administrative functions rather than managerial functions despite at board level. Such work-setting climate could have contributed towards these relationships and definitely not by chance. Established meta-quality relationships exclusive of creativity indicates that surveyed managers were restricted from innovative processes but supports the belief that they were best executing orders given. Learning style relationships prompts a belief that these managers would react to situations, as less thoughtful to follow theories otherwise could have useful that exist out of past experiences.



It is conceived that the results failed to prove that there is no relationships at all. It is also inferred that more data sets could have given better results (Aron *et al*). Issues concerning the accuracy, the  $p$  value, both determines varying decisions.

Previously, it was noted in the Learning Style Preferences that differences may have been due to the a few facts attributable to the sample, in comparison to General Norms which had differences in characteristics. (See Sect. 8.1). If that is the case, then the results have had ascribed here attributable to this said sample.

It is now appropriate to conclude that the results and out come both are ascribed to the sample surveyed, and were the deductions based on the data received. This now leads to set the stage for further research in this area either to prove or disprove.

## BIBLIOGRAPHY

- Allinson C and Hayes J (1990) Validity of the Learning Style Questionnaire. *Psychological Reports* 67
- Arul M J (1994) Managerial Attributes: A Comparative Analysis. *Working Paper 51* Institute of Rural Management, India.
- Ashburner et al (1996) Organizational Transformation and Top-down Change: the Case of the NHS. *British Journal of Management* 7, 1
- Bennis, W (1984) Transforming Our Work Ethic: Four Traits of Leadership Education
- Black T R (1999) *Doing Quantitative Research in Social Sciences*. 636-637,
- Bryman A (1999) *Managing Organisations: Current Issues* (Chapter 2) Sage Publications - R Clegg et al
- Burack E H et al (1997) The New Management Development Paradigm. *Human Resource Planning*. 20, 1
- Burgoyne J (1993) 'The Competency Movement: Issues, Stakeholders and Prospectus' *Manuscripts*
- Burgoyne J (1976) Learning process in the acquisitions of management skills and qualities - *Management Education and Development*. 7, 3 205-207
- Burgoyne J and Stuart R (1976) 'The nature, use and acquisition of managerial skills and other attributes'. *Personal Review* 5, 4,
- Burgoyne J (1976) Learning process in the acquisitions of management skills and qualities - *Management Education and Development* 7, 3
- Burgoyne J & Stuart R (1977) Implicit Learning Theories as Determinants of the Effects of Management Development. *Personal Review* 6, 2.
- Burgoyne J (1976) 'Learning process in the acquisition of management skills and qualities'. *Management Education and Development* 7, 3
- Burgoyne J (1989) Creating the managerial Portfolio: building on competency approach to management development. *Management Education and Development* 20,1,
- Burgoyne J G 1976- Learning Process in the Acquisitions of Management Skills and Qualities - *Management Education and Development* 7,3
- Burgoyne J G and Stuart R (1976) The nature, Use and Acquisition of Managerial Skills and Other Attributes. *Personal Review* 5, 4,
- Burgoyne J, Pedler M and Boydel T (1994) *The Manager's Guide to Self-development*. London: McGraw Hills
- Burns R. (2000) *Introduction to Research Methods*. London: Sage Publication
- Cambell J P et al (1970) Managerial Behaviour, Performance and Effectiveness London: McGraw Hill
- Caple & Martin (1996) Reflections of Two Pragmatists: A critique of Honey and Mumford's learning style. *Industrial and Commercial Training* 26, 1
- Cole G - *Management Theory and Practice* London: DPP
- Constable & McCromic (1987) *The Making of British Managers* BIM/CBI London
- Coulson Thomas C J (1994) Personal Qualities - Director development: Building an Effective Boardroom Team. *Journal of European Industrial Training* 18, 6. 29-52,
- Coulson-Thomas. C. J (1997) The Future of the Organization: Selected Management Development Issues. *Industrial and Commercial Training* 29, 7
- Dawson et al (1995) Managing in the NHS: A study of senior executives Executive Report. The Management School of the Imperial College of Science, Technology and Medicine.
- Edwards A L (1964) *Statistical Methods for the Behavioural Sciences* - Holt, Rinehart & Winston 305-307,

- Eugene Sadler-Smith (1996) Learning Styles: A Holistic Approach. *Journal of European Industrial Training* 20, 7, 26-36
- Farile A & Pettigrew A (1996) Managing through Networks: Some Issues and Implication for NHS *British Journal of Management*, 7, Special Issues 81-99
- Ghauri, et al (1995) - *Research Methods in Business Studies*. London: Prentice Hall. 74-75
- Grainer S (1992) The Manager in year 2000. *Silver Kris* 03/1992, 68-72
- Graves D (1976) The Manager's job and Management Development. *Personnel Review* 5, 4
- Hallman D & Hall L (1996) Competence in Management Development: Rites and Wrongs' *British Journal of Management* 7
- Handy C (1987) *The Making of Managers* NEDO/MSCLondon
- Harvey P and Burcher D (1998) Those Who Makes the Difference: developing business through developing individuals. *Industrial and Commercial Training* 30,1.
- Harwitz FM (1966) 'Executive Development: Facing the new realities'. *Journal of European Industrial Training* 20, 4, 11-16
- Hayes J & Allinson C (1993) Matching learning style and instructional strategy: an application of the person environment interaction paradigm. *Perceptual and motor skills*. 76. 63-79
- Hayes J & Allinson C (1996) The implication of learning styles for training and development. *British Journal of Management*. 7. 63-73
- Hayes J and Allinson C W (1994) 'Cognitive Style and its relevance for management practice'. *British Journal of Management* Vol5, 53-71
- Honey and Mumford (1986) *The Manual of Learning Styles* - UK: Maidenhead.
- Horwitz. F M (1996) Executive Development: facing the new realities. *Journal of European Industrial Training* 20, 4, 11-16
- Jankowicz A D (2000) *Business Research Projects* . 12-11 London: Business Press Thomson Learning
- Kanji G - (2000) *100 Statistical Tests*. 33-35 London: Sage
- Katz, R.L (1974) Skills of an Effective Administrator *Harvard Business Review*,
- Kumar. R. (1999) *Research Methodology: A step by step guide for beginners*. London: Sage Publications
- Land G & Robinson A (1995) 'The Development of Standards of Competence for Senior Management' *Executive Development* 8, 6,
- Lindbauum - Johnson et al (1999) *Exploring Corporate Strategy* 6 Ed. London: Prentice Hall
- Malim T et al (1997) *Research Methods and Statistics*. London: McMillan 57-58
- Margerison C (1991) 'Management Development Policies and Practices. *Journal of European Industrial Training* 15, 4, 29-31
- Margerison C (1992) 'What Manager's want from Management Development' *Management Development Review* 5, 1
- Margerison C and Kakabadse A (1985) What Management Development means for American CEOs. *Journal of Management Development* 4, 5
- Margerison C (1993) Career Choices and Management Development. *Management Development Review* 6, 4
- Mark Sirkin R (1999) *Statistics for the Social Sciences* 489, London: Sage
- Meggison D (1994) 'Planned & Emergent Learning'. *Executive Development* 7, 6, 29-32
- Meggison D (1996) Planned and Emergent Learning: Consequences for Development. *Management Learning* 27, 4. 411-428
- Mesick S (1970) *Individuality in Learning* - Jossi Bass NY (disclose Watkin's comment)
- Miles M and Huberman A M (1994) *Quantitative Data Analysis*. 2ed. London: Sage Publications.
- Molander C F (1977) Management Development and the Middle Aged Manager. *Personal Review* 6, 2
- Mullins L (1999) *Management and Organisational Behaviours* 5 Ed London: Prentice Hall
- Mullins L (2000) *Management and Organisational Behaviour*, 6 ed. London: Prentice Hall
- Mumford .A. (1993) *How managers can develop managers*. Aldershot. Gower
- Mumford A (1988) *Management Development Strategies*. UK: Maidenhead -

- Mumford A (1994) Four Approaches to Learning. *The Learning Organization* 1,1 4-10
- Mumford. A (1988) *Developing Top Managers* London: Gower
- Nicol D (1990), A Comprehensive Management Development Initiative *Health Service Management* , 6
- O'Donnel M (1986) *A New Introduction to Sociology* Nelson
- Pettigrew et al (1989) Managing Strategic Service Changes in the NHS - *Health Service Management Research* 2, 1
- Reid et al. (1993) *Training Interventions* 3Ed. London: Institute of Personal Management
- Reynolds M (1997) Learning Styles: A Critique. *Management Learning* 28, 2, 115-133
- Sadler-Smith E, (1996) Learning Styles: Holistic Approach, *Journal of European Industrial Training*, 20, 7 29-36
- Saunders M, et al (2000) *Research Methods for Business Students* 2ed 84-85 London: FT Prentice Hall
- Sadler-Smith E et al (2000) Learning Preferences and Cognitive Style: some implications for continuing professional development, *Management Learning* 31, 2
- Spurgeon R et al (1990) The Compatibility of General Manager's Activities and Intentions in Managing Change, *Health Service Management Research* 3, 1
- Stacey R (2000) *Strategic Management and Organisational Dynamics* 3rd Ed. London: FT-Prentice Hall
- Storey J (1992) Management Development in Britain and Japan. *Management Development Review* 5, 3
- Stuart R & Burgoyne J G (1977) The Learning Goals and Outcomes of Management Development Programmes. *Personal Review* 6, 1
- Talbot, C (1997) Paradoxes of Management Development - trends and tensions. *Career Development International*. 2, 3
- Tesch R. (1992) *Qualitative Research: Analysis Types & Software tools*. The Falmer Press.
- Thomson J E , Stuart R and Lindsey P R (1996) The Competence of Top Team Members: A Framework for Successful Performance. *Journal of Management Psychology*, 11, 3
- Tietjen (1991), Management Development in the NHS *Personal Management*
- May T (1997) *Social Research: Issues, Methods and Process* 2ed. Open University Press.
- Torrington and Hall (1991) *Personnel Management* - London: Prentice Hall
- Torrington and Hall (1998) *Human Resource Management* - 4ed. 440-443. London: Prentice Hall,
- Uma Sekaran. (1992) *The Research Methods for Business* .2 ed. London: John Wiley and Sons.
- Williams C (1996) Management Competencies and the Management Education Needs, *Management Learning* 27, 3, 301-322
- Yau and Sculli (1989) Managerial traits and skills. *Journal of Management Development*. 9, 6, *Network News*, 3 1-3. Sept-Oct, 90-102

APPENDICES

Appendix A

Letters from Dr. Honey and Dr. Mumford

Thava Thavanayagam Esq  
Management Unit

16 Sutterland Road  
Croydon  
Surrey  
CRO 3QG

28 September 2000

Dear Thava,

Following your recent conversation with Suzanne, I confirm that I do not know of any research which examines the relationship between the Honey and Mumford Learning Styles and other measures of performance or personal attributes.

As you know various norms were quoted in *The Manual of Learning Styles* and whilst I feel sure that, given the popularity of the questionnaire, other cultural and functional norms will have been established within organisations, as far as I am aware none have been fully researched and made public.

Yours sincerely



Dr Peter Honey

**Dr Alan Mumford**  
D Litt, CIPD  
*Specialist in Director and Management Development*

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Tel: 020 8946 5343  
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Thava Thavanayagam  
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16 Sutterland Road  
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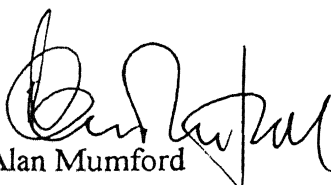
7  
September 00

Dear Thava,

Thank you for your fax of 29 August

1. The Directors results are for 70 people, not 42.
2. I am not well equipped to comment on statistical difference, but it does seem surprising that the Reflector score is lower than both General Norm and Director Norm.
3. There has been very little research on Honey and Mumford Learning Styles, nor on any relationship there might be with other measures of performance or personal qualities.
4. There has been as far as I know no comparison of different groups of individuals, except for the functional norms and cultural norms quoted in our Manual.

Yours sincerely,

  
Alan Mumford



## **Appendices B**

### **Meta – Qualities (Burgoyne and Stuart 1977)**

#### **General Descriptions**

##### **Creativity**

This quality is taken to encompass both the ability to come up with unique, new approaches to situations, and having the imaginative breadth to immediately recognise and take up useful new approaches from elsewhere.

##### **Mental agility**

This quality refers to both general mental capacity for understanding complex situations, and the speed with this is done. It is to mean something more than the useful IQ rating: being able to quickly grasp problems and think about them, think of several things at once, switch rapidly from one situation and problem to another, and to “think on one’s feet”.

##### **Balanced Learning Habits**

This quality is the presence or absence of various habits of skills in learning seems to determine much of an individual’s success at work. Of some importance seem to be independence of mind, an ability for abstract as well as concrete, practical thought, a capacity for observations and reflections, receptiveness to inputs, and an ability to learn by discovery-trial and error “experimentation”.

##### **Self knowledge**

The quality is accounting two areas: the strength of awareness of one’s own values, attitudes, beliefs and assumptions; and an awareness of one’s levels of skills and abilities.

**Appendix C**

**Email form Dr C Allinson and Dr. J Hayes**

FROM: INTERNET:jh@lubs.leeds.ac.uk, INTERNET:jh@lubs.leeds.ac.uk  
TO: Thavanesan Thavanay, THAVA\_BEAMS  
DATE: 27/07/00 11:36

Re: RE: Advise on Learning styles

Dear Thava,

The conventional approach is to adopt the medium as the cut-off point.

Re references, our best advice is that you use an on-line database as neither Chris nor me have looked at the LSQ literature in recent months.

Regards

John

Date sent: Wed, 26 Jul 2000 15:51:07 -0400  
From: Thavanesan Thavanay  
<THAVA\_BEAMS@compuserve.com>  
Subject: RE: Advise on Learning styles  
To: "Dr. J Hayes" <JH@lubs.leeds.ac.uk>  
Copies to: "Dr. C Allinson" <CWA@lubs.leeds.ac.uk>

Dear Dr. Hayes, and Dear Dr. C Allinson

I am a MPhil student at Uni. Luton. I am looking at Management Development and Change of the Top Managers in NHS Trust. My work is aiming to study the relationship between 4 Meta-Qualities (John Burgoyne) and 4 Learning Styles (Honey & Mumford). I have collected responses using instruments of both (Self assessment questionnaire of Burgoyne and LSP questionnaire of H&M). I have reviewed most of your literature in this context.

1. Using the raw scores I attempted to find correlations and only notice relationship between (self-knowledge and Activist).
2. Attempted to see between Balance Learning Habits and the learning styles. As H&M, in their manual talk about the possibility of some one having equivalent strength in the all 4 styles, there exists a balance learning habits.
3. Or when there is dominant strength on one style, then wish to explore reasons.
4. In the process, I might, come up with a format to measure meta-qualities using learning styles. ( far thought it appears)

In this context, I am seeking your advise to explore some leads to identify literature?

Alternatively, what advise can you give in the process of

# Appendix D

## Managerial Qualities framework of effective manager

Source: Burgoyne et al

A Manager's Guide to Self Development 3<sup>rd</sup> ed. pp 25-30

### Group 1

#### Basic knowledge and information

1. *Command of basic facts*: Successful managers know what's what in their organisation. They have a command of such basic facts as goals and plans (long and short term), product knowledge, who is who in the organisation, the roles and relationships between various departments, their own job and what's expected of them. If they don't store all this information, they know where to get it when they need it.
2. *Relevant professional knowledge*: This category includes 'technical' knowledge, e.g. production technology, marketing techniques, engineering knowledge, relevant legislation, source of finance and knowledge of basic back ground management principles and theories e.g. planning, organising and controlling.

### Group 2.

#### Skills and Attributes

3. *Continuing sensitivity to events*: Managers vary in the degree to which they can sense what is happening in a particular situation. The successful manager is relatively sensitive to events and can tune in to what's going on and is perceptive and open to information – 'hard' information, such as facts and figures, and 'soft' information, such as the feelings of other people. The managers with this sensitivity are able to respond in an appropriate way to situations as they arise.
4. *Analytical, problem solving and decision/judgement-making skills*: The job of the manager is very much concerned with making decisions. Sometimes these can be made using logical, optimising techniques. Other decisions call for the ability to weight pros and cons in what is basically a very uncertain or ambiguous situation, calling for high level of judgement or even intuition. The a manger must therefore develop judgement-making skills, including the ability to cope with ambiguity and uncertainty, striking a balance between the necessary at times to be guided by subjective feelings without throwing objective logic completely out of the window.
5. *Social skills and abilities*: One definition of management often cited is 'getting things done through other people'. This definition may be inadequate, but it does point to one of the key features of the manager's job – it requires interpersonal sills. The successful manager develops a range of abilities which are essentials in such activities: communicating, delegating, negotiating, resolving conflict, persuading, selling, using and responding to authority and power.

## Appendix D

6. *Emotional resilience*: The manager's job involves a degree of emotional stress and strain, which arises as a natural consequence of working in situations involving authority, leadership, power, interpersonal conflict, meeting targets and deadlines all, within a framework of a degree of uncertainty and ambiguity. The successful manager needs to be sufficiently resilient to cope with this. 'Resilient' means that, when feeling stressed we don't get thick skinned and insensitive, but manage to cope by maintaining self-control and by 'give in' to some extent.
7. *Reactivity*: Effective managers have some purpose or goal to achieve, rather than merely responding to demand. They cannot plan everything carefully in advance, and at times they must respond to the needs of the instant situation, but when making such a response the effective manager is able to consider the long term. Immediate responses are related to overall and long term aims and goals, where as the less successful manager responds in a relatively unthinking or uncritical way to the immediate pressure. This category of ability also includes such qualities as seeing a job through, being dedicated and committed, having a sense of mission, and taking responsibility for things that happen rather than passing the buck to someone else.

### Group 3

#### Meta-qualities

8. *Creativity*: By 'Creativity' we mean the ability to come up with unique new responses to situations, and to have the breadth of insight to recognize and take up useful new approaches. It involves not only having new ideas oneself, but also the ability to recognise a good idea when it is presented from another source.
9. *Mental agility*: Although related to general intelligence level, the concept of 'mental agility' includes the ability to grasp problems quickly, to think of several things at once, to switch rapidly from one problem or situation to another, to see quickly the whole situation (rather than ponderously plough through all its components), and to 'think on one's feet'. Given the hectic nature of the managerial work these are particularly necessary qualities for success.
10. *Balanced learning habits and skills*: A manager's significant proportion of the degree of success can be explained by the presence or absence of habits and skills related to learning.
  - Successful managers are more independent as learners; they take responsibility for the 'rightness' of what is learned, rather than depending, passively and uncritically, on an authority figure (a teacher or an expert) to define the truths.
  - Successful managers are capable of abstract thinking, as well as concrete, practical thought. They are able to relate concrete ideas to abstract ones (and vice versa) relatively quickly. This ability – which is sometimes known as 'helicopter mind' – enables managers to generate their own theories from practice, and to develop their own practical ideas from theory.

## Appendix D

- The ability to use a range of different learning processes is necessary for managerial success. Three such process are:
    - a) input – receiving expository teaching, either formal (e.g. on a course) or informal (e.g. coaching by colleague);
    - b) discovery – generating personal meaning from one's own experience
    - c) reflection - a process of analysing and reorganising pre-existing experiences and ideas.
  - Successful managers are more likely to have reflective wide view of the nature of the skills of management. For example, they are more likely to recognise the range of managerial attributes as presented in this model, than to believe that management is a unitary activity, involving, for example, dealing with staff members (i.e. needing only a certain set of social skills) or simply involving basic decision making.
11. Whatever each of us does is affected by our own view of our job or role, by our goals, values, feelings, strengths, weaknesses, and a host of other personal factors. To keep a relatively high degree of self-control, the manager must be aware of these self-attributes and the part they play in influencing actions. The successful manager therefore needs skills of introspection.

## Appendix E

# Learning Style Preferences (Honey and Mumford 1982-1988)

### Activists

Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They are open-minded, not sceptical and this tends to make them enthusiastic about anything new. Their philosophy is 'I'll try anything once'. They tend to act first and consider the consequences afterwards. Their days are filled with activity. They tackle problems by brainstorming. As soon as the excitement from one activity has died down they are busy looking for the next. They tend to thrive on the challenge of new experiences but are bored with implementation and longer term consolidation. They are gregarious people constantly involving themselves with others but, in doing so, they seek to centre all activities around themselves.

### Reflectors

Reflectors like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others, and prefer to think about it thoroughly before coming to any conclusion. The thorough collection and analysis of data about experiences and events is what counts so they tend to postpone reaching definitive conclusions for as long as possible. Their philosophy is to be cautious. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take a back seat in meetings and discussions. They enjoy observing other people in action. They listen to others and get the drift of the discussion before making their own points. They tend to adopt a low profile and have a slightly distant, tolerant unruffled air about them. When the act it is part of a wide picture which includes the past as well as the present and others' observations as well as their own.

### Theorists

Theorists adapt and integrate observations into complex but logically sound theories. They think problems through in a vertical, step-by-step logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists who won't rest easy until things are tidy and fit into a rational scheme. They like to analyse and synthesize. They are keen on basic assumptions, principles, theories models and systems thinking. Their philosophy prizes rationality and logic. 'If it's logical it's good'. Questions they frequently ask are: 'Does it make sense?' 'How does this fit that?' 'What are the basic assumptions?' They tend to be detached, analytical and dedicated to rational objectivity rather than anything subjective or ambiguous. Their approach to problems is consistently logical. This is their 'mental set' and they rigidly reject anything that doesn't fit with it. They prefer to maximize certainty and feel uncomfortable with subjective judgements, lateral thinking and anything flippant.

### Pragmatists

Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are the sort of people who return from management courses brimming with new ideas that they want to try out in practice. They like to get on with things and act quickly and confidently on ideas that attract them. They tend to be impatient with ruminating and open-ended discussions. They are essentially practical, down to earth people who like making practical decisions and solving problems. They respond to problems and opportunities 'as a challenge'. Their philosophy is: 'There is always a better way' and 'If it *works* it's good'.

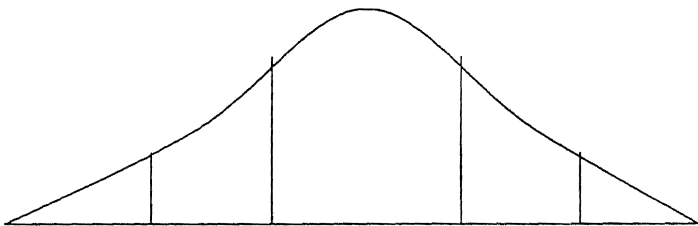
Appendix E

Learning styles and General Norms – Honey and Mumford

Honey and Mumford pronounced four styles in 1982-1988. They used a population of 3500 to develop the General Norm. They are calculated by dividing those scores into five bands:-

- A. the point at which 10% of the scores are above and the 90% are below.
- B. the point at which 30% of the scores are above and 70% are below.
- C. the middle 40% of scores with 20% above and 20% below the mean.
- D. the point at which 70% of the scores are above and 30% are below.
- E. the point at which 90% of the scores are above and 10% are below.

Highest scoring 10%	Next 20%	Middle scoring 40%	Next 20%	Lowest scoring 10%
------------------------	----------	-----------------------	----------	-----------------------



	Very strong preferences	Strong preferences	Moderate preferences	Low Preferences	Very Low Preferences
Activist	13-20	11-12	7-10 mean = 9.3	4-6	0-3
Reflector	18-20	15-17	12-14 mean = 13.6	9-11	0-8
Theorist	16-20	14-15	11-13 mean = 12.5	8-10	0-7
Pragmatist	17-20	15-16	12-14 mean = 13.7	9-11	0-8

Source: The Manual of Learning style 1988 (with permission from Honey & Mumford)



## **Appendix F**

### **Set of Assessment Instruments**

**Part 1 – for manager profile**

**Part 2 – for managerial qualities**

**Part 3 – for learning style preferences**

## Part 1

The Part 1 of the questionnaire deals with yourself and your perception only. Please answer to the best of your own knowledge.

NT 26

1. Please state your current occupation title and the length of service.

Job title ..... Length of service.....

2. Please indicate which age group you belong to

- a. Less than 30 years.  
b. Between 31 and 40 years  
c. Between 41 and 50 years  
d. Between 51 and 65 years  
e. Over 65 years

☐  
☐  
☐  
☐  
☐

3. Please let us know about your last occupation.

Job title ..... Industry/Sector ..... Duration ..... years.

4. Please state the highest qualification you had at the time of taking up your current job.

.....

5. Please state at least three important developments you have made to your 'portfolio of personal professionalism' since taking up your current occupation.

1 .....

2 .....

3 .....

6. Briefly state what the reason(s) is/are for undertaking the development(s) you have stated above in question 5.

.....

.....

.....

.....

7. Please list four prime managerial activities in your current occupation..

1 .....

2 .....

3 .....

4 .....

8. Please indicate the Four most significant 'managerial qualities' from the list below that you need to have to carryout your prime activities.

a. Command of basic facts

☐

g. Pro activity

☐

b. Relevant professional knowledge

☐

h. Creativity

☐

c. Continuing sensitivity to events

☐

i. Mental agility

☐

d. Analytical, problem solving & decision making

☐

j. Balanced learning habits and skills

☐

e. Social skills and abilities

☐

k. Self-knowledge

☐

f. Dispassionate impartiality

☐

l. Others (please specify).....

9. How would you see the future of your current job role?

.....

.....

.....

10. What proposition(s) you have about developing your own 'managerial qualities' in the light of the future?

.....

.....

.....

## Part 1

The Part 1 of the questionnaire deals with yourself and your perception only. Please answer to the best of your own knowledge.

11. Please provide three most essential reasons that drive you to make changes to your own 'managerial qualities'.

1.....  
2.....  
3.....

12. Please state three most significant impacts on you, if you fail to make any changes in your own 'managerial qualities'.

1.....  
2.....  
3.....

13. Please state what management development opportunities you had in your current job to improve your own 'managerial qualities'?

.....  
.....  
.....

14. If you have participated in management development(s) in your current occupation, then, please list briefly up to Two of those most valuable management developments.

1.....  
2.....

15. Can you please state why you have participated in those management development(s), you have indicated in question 14?

.....  
.....  
.....

16. Please state what significant achievement(s) you have had from those management development(s) that you have undertaken?

.....  
.....  
.....

17. Can you identify at least three of those 'managerial qualities' (listed in Question 8) that have been modified or changed due to your participation in management development(s) in your current occupation.

1.....  
2.....  
3.....

18. Can you identify what management development component(s) caused the changes in your own 'managerial qualities' that you have found changed by your participation in the chosen management development(s)?

.....  
.....  
.....

19. Given an opportunity now, what management development(s) would you choose to develop your own 'managerial qualities'?

.....  
.....

20. Can you indicate what kind of duration you prefer for the management development(s) you would choose?

Short term (1-6 months) ☐ Medium term (6-12 months) ☐ Long term (over 12 months) ☐

This part of the questionnaire contains 40 statements, that helps to find out a score for your possessed managerial qualities. You are to state your agreement to each of the 40 statements, and to do so, you have to tick in the respective cell (a), (b), (c), (d) or (e). Please ensure answering all the statements. The accuracy of the results depends on how honest you can indicate what you are instead of what is your best preference.

The answering scheme should be based on the following instructions:

- 1. Mark **'a'** if you think that the statement is **definitely not true** of you; you **strongly disagree** with the statement; you **never behave or feel the way indicated** by the statement.
- 2. Mark **'b'** if you think that the statement is **sometimes true** of you; you **partly agree** with the statement; you **sometimes behave or feel the way indicated** by the statement.
- 3. Mark **'c'** if you think that the statement is **generally true** of you; you **definitely agree** with the statement; you **quite often behave or feel the way indicated** by the statement.
- 4. Mark **'d'** if you think that the statement is **always or very nearly always true** of you; you **strongly agree** with the statement; you **usually or always behave or feel the way indicated** by the statement.
- 5. Mark **'e'** if you think that the statement is **neither true nor untrue** of you; you are **unable decide** either way with the statement; and your **behaviour does not fit** in any way as indicated by the statement.

VISUAL GUIDE

a	b	c	d	e
Strongly disagree,	Partially agree	Definitely agree	Strongly agree	Neither agree nor disagree
Definitely Untrue	Sometimes true	Generally True	Always True	Neither true nor untrue

## Part 2

1.	I find it difficult to come up with new ideas.	a)	b)	c)	d)	e)
2.	Compared with other people, I'm rather slow on the uptake.	a)	b)	c)	d)	e)
3.	I don't see much connection between theory and practice in management.	a)	b)	c)	d)	e)
4.	I find it difficult to ask other people what they really think of me.	a)	b)	c)	d)	e)
5.	I'm not an imaginative person.	a)	b)	c)	d)	e)
6.	I have difficulty in thinking on my feet in tricky situations.	a)	b)	c)	d)	e)
7.	Experience is the only valid teacher.	a)	b)	c)	d)	e)
8.	It's dangerous to be introspective.	a)	b)	c)	d)	e)
9.	I don't think that people with other specialist interests have much to offer me in my particular job.	a)	b)	c)	d)	e)
10.	I prefer to work on one thing at a time rather than be dealing with several things at once.	a)	b)	c)	d)	e)
11.	I'm not able to convert my own experiences into valid theories.	a)	b)	c)	d)	e)
12.	There's just not enough time in my job to sit around talking about how we feel about each other.	a)	b)	c)	d)	e)
13.	My job is unique, so I don't think that people from other back grounds could be of much help to me.	a)	b)	c)	d)	e)
14.	Once I get stuck into a task I try to remain with it rather than switch to something else and then back again.	a)	b)	c)	d)	e)
15.	I don't sit and think abstract thoughts about management.	a)	b)	c)	d)	e)
16.	I'm basically a logical person, and I don't let my feelings influence me.	a)	b)	c)	d)	e)
17.	I am better at implementing well-tried solutions rather than experimenting with new ones.	a)	b)	c)	d)	e)
18.	To see the whole situation one must carefully consider all the parts.	a)	b)	c)	d)	e)
19.	It's best to rely on experts when seeking ideas about specialized aspects of one's job.	a)	b)	c)	d)	e)
20.	I don't think we should let our values and feelings affect the way we behave at work.	a)	b)	c)	d)	e)
21.	I get mental blockages when trying to think of new ways of doing things.	a)	b)	c)	d)	e)
22.	"Slow and steady wins the race" is a pretty good motto.	a)	b)	c)	d)	e)
23.	When I get an idea I like, if possible, to have it checked out by an expert.	a)	b)	c)	d)	e)
24.	My medium- and long-term ambitions are not clear.	a)	b)	c)	d)	e)
25.	I have difficulty in coming up with new ideas.	a)	b)	c)	d)	e)
26.	I can't cope with more than one or two problems at a time.	a)	b)	c)	d)	e)
27.	If I go on a course I would like the teachers or trainers to be able to give me a lot of information and ideas.	a)	b)	c)	d)	e)
28.	There's not much point in thinking about oneself and 'contemplating one's navel'.	a)	b)	c)	d)	e)
29.	Other people seem better than me at thinking of new ways of solving problems.	a)	b)	c)	d)	e)
30.	I'm not what you'd call a quick thinker.	a)	b)	c)	d)	e)
31.	If I hear of a new theory I find it difficult to translate it into practical terms relevant to my job.	a)	b)	c)	d)	e)
32.	I wouldn't like other people to tell me exactly what they think of me.	a)	b)	c)	d)	e)
33.	I don't seem as good as other people at getting creative ideas.	a)	b)	c)	d)	e)
34.	The trouble with my job is that I'm never left alone to get on with it-there are too many interruptions.	a)	b)	c)	d)	e)
35.	I dislike jargon or over-theoretical ways of talking.	a)	b)	c)	d)	e)
36.	It's a good job we can't read the thoughts of others.	a)	b)	c)	d)	e)
37.	Compared with other people, my ideas seem to be stuck in a rut, or fixed by well-established ways of doing things.	a)	b)	c)	d)	e)
38.	When I'm under pressure, in a tight spot, or being challenged, I can't seem to think straight or express my ideas clearly.	a)	b)	c)	d)	e)
39.	I'm the sort of person who goes around saying 'no one can tell me how to do my job'.	a)	b)	c)	d)	e)
40.	I don't spend much time thinking about myself-my strength and weakness.	a)	b)	c)	d)	e)

### Part 3

This questionnaire contains 80 statements, and designed to find out your preferred learning style(s). Over the years you have probably developed various learning 'habits' that help you benefit more from some experiences than from others. This is to pinpoint your learning preferences that best suit your style. It will probably take you 10 - 15 minutes. The accuracy of the results depends on how honest you can be. There are no right or wrong answers. Please follow the following instructions.

If you agree more than you disagree with a statement put a tick (✓).

If you disagree more than you agree put a cross by it (X).

Be sure to mark each item with either a (✓) or (X).

- [ ] 1. I have strong beliefs about what is right and wrong, good and bad.
- [ ] 2. I often act without considering the possible consequences.
- [ ] 3. I tend to solve problems using a step-by-step approach.
- [ ] 4. I believe that formal procedures and policies restrict people.
- [ ] 5. I have a reputation for saying what I think, simply and directly.
- [ ] 6. I often find that actions based on feelings are as sound as those based on careful thought and analysis.
- [ ] 7. I like the sort of work where I have time for through preparation and implementation.
- [ ] 8. I regularly question people about their basic assumptions.
- [ ] 9. What matters most is whether something work in practice.
- [ ] 10. I actively seek out new experiences.
- [ ] 11. When I hear about a new idea or approach immediately start working out how to apply it in practice.
- [ ] 12. I am keen on self discipline such as watching my diet, taking regular exercise, sticking to a fixed routine, etc.
- [ ] 13. I take pride in doing a thorough job.
- [ ] 14. I get on best with logical, analytical people and less well with spontaneous, 'irrational' people.
- [ ] 15. I take care over the interpretation of data available to me and avoid jumping to conclusions.
- [ ] 16. I like to reach a decision carefully after weighing up many alternatives.
- [ ] 17. I'm attracted more to novel, unusual ideas to practical ones.
- [ ] 18. I don't like dis-organized things and prefer to fit things into a coherent pattern.
- [ ] 19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
- [ ] 20. I like to relate my actions to a general principle.
- [ ] 21. In discussion I like to get straight to the point.
- [ ] 22. I tend to have distant, rather formal relationships with people at work.
- [ ] 23. I thrive on the challenge of tackling something new and different.
- [ ] 24. I enjoy fun-loving, spontaneous people.
- [ ] 25. I pay meticulous attention to detail before coming to a conclusion.
- [ ] 26. I find it difficult to produce ideas on impulse.
- [ ] 27. I believe in coming to the point immediately.
- [ ] 28. I am careful not to jump to conclusions too quickly.
- [ ] 29. I prefer to have as many sources of information as possible-the more data to think over the better.
- [ ] 30. Flippant people who don't take things seriously enough usually irritate me.
- [ ] 31. I listen to other people's points of view before putting my own forward.
- [ ] 32. I tend to be open about how I am feeling.
- [ ] 33. In discussions I enjoy watching the maneuverings of the other participants.
- [ ] 34. I refer to respond to events on a spontaneous, flexible basis rather than plan things out in advance.
- [ ] 35. I tend to be attracted to techniques such as network analysis, flow charts, branching programmes, contingency planning etc.
- [ ] 36. It worries me if I have to rush out a piece of work to meet a tight deadline.
- [ ] 37. I tend to judge people's ideas on their practical merits.
- [ ] 38. Quiet, thoughtful people tend to make me feel uneasy.
- [ ] 39. I often get irritated by people who want to rush things.
- [ ] 40. It is more important to enjoy the present moment than to think about the past or future.

P T O.

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- [ ] 41. I think that decisions based on a thorough analysis of all the information are sounder than those based on intuition.
- [ ] 42. I tend to be a perfectionist.
- [ ] 43. In discussion I usually produce lots of spontaneous ideas.
- [ ] 44. In meetings I put forward practical realistic ideas.
- [ ] 45. More often than not, rules are there to be broken.
- [ ] 46. I prefer to stand back from a situation and consider all the perspectives.
- [ ] 47. I can often see inconsistencies and weaknesses in other people's arguments.
- [ ] 48. On balance I talk more than I listen.
- [ ] 49. I can often see better, more practical ways to get things done.
- [ ] 50. I think written reports should be short and to the point.
- [ ] 51. I believe that rational, logical thinking should win the day.
- [ ] 52. I tend to discuss specific things with people rather than engaging in social discussion.
- [ ] 53. I like people who approach things realistically rather than theoretically.
- [ ] 54. In discussions I get impatient with irrelevancies and digressions.
- [ ] 55. If I have a report to write I tend to produce lots of drafts before settling on the final version.
- [ ] 56. I am keen to try things out to see if they work in practice.
- [ ] 57. I am keen to reach answers via a logical approach.
- [ ] 58. I enjoy being the one that talks a lot.
- [ ] 59. In discussions I often find I am the realist, keeping people to the point and avoiding wild speculations.
- [ ] 60. I like to ponder many alternatives before making up my mind.
- [ ] 61. In discussions with people I often find I am the most dispassionate and objective.
- [ ] 62. In discussions I'm more likely to adopt a 'low profile' than to take the lead and do most of the talking.
- [ ] 63. I like to be able to relate current actions to a longer term bigger picture.
- [ ] 64. When things go wrong I am happy to shrug it off and 'put it down to experience'.
- [ ] 65. I tend to reject wild, spontaneous ideas as being impractical.
- [ ] 66. It's best to think carefully before talking actions.
- [ ] 67. On balance I do the listening rather than the talking.
- [ ] 68. I tend to be tough on people who find it difficult to adopt a logical approach.
- [ ] 69. Most times I believe the end justifies the means.
- [ ] 70. I don't mind hurting people's feelings so long as the job gets done.
- [ ] 71. I find the formality of having specific objectives and plans stifling.
- [ ] 72. I'm usually one of the people who puts life into a party.
- [ ] 73. I do whatever is expedient to get the job done.
- [ ] 74. I quickly get bored with methodical, detailed work
- [ ] 75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
- [ ] 76. I am always interested to find out what people think.
- [ ] 77. I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
- [ ] 78. I steer clear of subjective or ambiguous topics.
- [ ] 79. I enjoy the drama and excitement of a crisis situation.
- [ ] 80. People often find me insensitive to their feelings.

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# Appendix G1

## Raw Scores: Meta qualities and Learning Style Preferences

Record	Creativity	Mental Agility	Learning	SelfKnowledge	Activist	Reflector	Theorist	Pragmatist
NT105	21	29	29	35	13	11	13	14
NT108	12	19	15	18	9	11	9	11
NT117	11	15	16	18	7	11	14	11
NT133	14	16	18	24	12	11	12	17
NT143	18	18	27	24	7	14	11	8
NT151	13	39	21	21	8	20	15	13
NT169	15	21	27	27	6	7	12	17
NT178	13	21	17	24	8	15	11	12
NT186	14	19	21	15	12	10	4	13
NT19	13	22	19	24	8	10	14	16
NT216	16	22	20	22	4	15	13	10
NT218	12	17	20	18	6	16	13	17
NT236	16	19	27	25	10	15	17	14
NT51	26	13	15	25	10	7	7	13
NT54	35	17	13	18	9	12	14	15
NT57	11	14	24	23	12	9	6	13
NW1	11	12	22	23	9	13	15	16
NW107	10	15	13	22	6	9	9	11
NW126	10	20	19	21	17	8	10	14
NW132	13	15	22	21	10	12	14	14
NW134	15	17	20	19	10	17	16	13
NW137	13	12	18	17	9	10	13	11
NW144	14	13	22	20	14	4	8	14
NW149	11	13	15	18	6	17	16	12
NW152	18	12	16	19	13	7	7	12
NW166	16	20	18	19	11	9	8	9
NW178	19	23	14	19	11	17	11	10
NW18	10	13	10	22	7	11	13	13
NW19	19	26	26	26	7	12	12	14
NW197	12	13	26	26	12	14	13	12
NW211	13	19	25	19	9	7	11	15
NW216	14	15	22	29	6	13	17	16
NW218	18	24	18	25	12	19	15	17
NW229	12	18	25	18	15	5	12	16
NW24	11	15	22	18	15	8	5	14
NW254	10	14	16	19	7	11	10	12
NW38	17	16	23	23	9	17	17	13
NW39	18	16	21	17	9	12	13	13
NW41	10	20	25	23	10	6	7	10
NW59	14	14	17	19	11	8	7	15
NW6	13	14	21	19	5	15	14	15
NW68	10	13	15	17	14	10	14	16
NW72	17	12	14	17	11	9	8	7
NW79	12	17	19	13	10	10	12	13
NW88	11	17	18	21	6	13	6	7
NW90	11	17	22	22	11	13	10	14
ST105	18	24	33	29	8	9	12	11
ST123	15	27	23	19	15	12	14	15
ST176	12	12	21	23	12	6	10	11
ST200	25	23	19	23	9	9	14	17
ST266	18	19	22	27	5	16	15	16
ST54	10	12	16	21	12	7	9	13

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Appendix G-2  
Learning style preferences

GLOBAL SCORE FOR LSP

Record	Activist	Reflector	Theorist	Pragmatist	Global LSP	RANK	Standardised LSP
NW79	-0.10	0.36	-0.13	0.07	0.22	1	-1.72
NW107	1.24	0.62	0.78	0.86	0.26	2	-1.62
NW132	-0.10	-0.18	-0.74	-0.33	0.28	3	-1.57
NW39	0.23	-0.18	-0.43	0.07	0.29	4	-1.54
NW254	0.90	0.09	0.48	0.46	0.33	5	-1.43
NT108	0.23	0.09	0.78	0.86	0.39	6	-1.29
ST105	0.57	0.62	-0.13	0.86	0.42	7	-1.19
NW90	-0.44	-0.45	0.48	-0.33	0.45	8	-1.14
NT54	0.23	-0.18	-0.74	-0.72	0.47	9	-1.08
NT105	-1.11	0.09	-0.43	-0.33	0.50	10	-1.00
NW137	0.23	0.36	-0.43	0.86	0.53	11	-0.91
NW18	0.90	0.09	-0.43	0.07	0.55	12	-0.85
NW19	0.90	-0.18	-0.13	-0.33	0.56	13	-0.82
NW218	-0.77	-2.06	-1.04	-1.51	0.56	14	-0.82
NW197	-0.77	-0.72	-0.43	0.46	0.57	15	-0.80
NW1	0.23	-0.45	-1.04	-1.11	0.62	16	-0.66
ST123	-1.78	-0.18	-0.74	-0.72	0.67	17	-0.55
NT236	-0.10	-0.99	-1.65	-0.33	0.70	18	-0.47
NT178	0.57	-0.99	0.18	0.46	0.71	19	-0.43
NT133	-0.77	0.09	-0.13	-1.51	0.72	20	-0.42
NW41	-0.10	1.43	1.39	1.25	0.73	21	-0.38
NT51	-0.10	1.16	1.39	0.07	0.76	22	-0.32
NW211	0.23	1.16	0.18	-0.72	0.77	23	-0.29
NT117	0.90	0.09	-0.74	0.86	0.77	24	-0.28
NW68	-1.45	0.36	-0.74	-1.11	0.78	25	-0.25
NT19	0.57	0.36	-0.74	-1.11	0.82	26	-0.15
NW134	-0.10	-1.52	-1.34	0.07	0.82	27	-0.14
ST54	-0.77	1.16	0.78	0.07	0.85	28	-0.06
NW166	-0.44	0.62	1.09	1.64	0.88	29	0.01
ST176	-0.77	1.43	0.48	0.86	0.93	30	0.15
ST200	0.23	0.62	-0.74	-1.51	0.96	31	0.22
NW38	0.23	-1.52	-1.65	0.07	1.01	32	0.34
NW59	-0.44	0.89	1.39	-0.72	1.02	33	0.38
NT57	-0.77	0.62	1.69	0.07	1.04	34	0.41
NW152	-1.11	1.16	1.39	0.46	1.13	35	0.66
NW178	-0.44	-1.52	0.18	1.25	1.16	36	0.74
NT143	0.90	-0.72	0.18	2.04	1.16	37	0.76
NW72	-0.44	0.62	1.09	2.43	1.19	38	0.82
NW6	1.57	-0.99	-0.74	-0.72	1.20	39	0.85
NW88	1.24	-0.45	1.69	2.43	1.22	40	0.90
NT218	1.24	-1.25	-0.43	-1.51	1.24	41	0.95
NW216	1.24	-0.45	-1.65	-1.11	1.25	42	0.99
NT151	0.57	-2.33	-1.04	0.07	1.29	43	1.08
NT169	1.24	1.16	-0.13	-1.51	1.29	44	1.09
NT186	-0.77	0.36	2.30	0.07	1.30	45	1.11
ST266	1.57	-1.25	-1.04	-1.11	1.36	46	1.26
NW149	1.24	-1.52	-1.34	0.46	1.36	47	1.26
NT216	1.91	-0.99	-0.43	1.25	1.37	48	1.29
NW126	-2.45	0.89	0.48	-0.33	1.49	49	1.61
NW144	-1.45	1.97	1.09	-0.33	1.51	50	1.66
NW229	-1.78	1.70	-0.13	-1.11	1.51	51	1.67
NW24	-1.78	0.89	2.00	-0.33	1.62	52	1.96

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Appendix G-2  
Learning style preferences

GLOBAL SCORE FOR LSP

Record	Activist	Reflector	Theorist	Pragmatist	Global LSP	RANK	Standa dised LSP
NW79	-0.10	0.36	-0.13	0.07	0.22	1	-1.72
NW107	1.24	0.62	0.78	0.86	0.26	2	-1.62
NW132	-0.10	-0.18	-0.74	-0.33	0.28	3	-1.57
NW39	0.23	-0.18	-0.43	0.07	0.29	4	-1.54
NW254	0.90	0.09	0.48	0.46	0.33	5	-1.43
NT108	0.23	0.09	0.78	0.86	0.39	6	-1.29
ST105	0.57	0.62	-0.13	0.86	0.42	7	-1.19
NW90	-0.44	-0.45	0.48	-0.33	0.45	8	-1.14
NT54	0.23	-0.18	-0.74	-0.72	0.47	9	-1.08
NT105	-1.11	0.09	-0.43	-0.33	0.50	10	-1.00
NW137	0.23	0.36	-0.43	0.86	0.53	11	-0.91
NW18	0.90	0.09	-0.43	0.07	0.55	12	-0.85
NW19	0.90	-0.18	-0.13	-0.33	0.56	13	-0.82
NW218	-0.77	-2.06	-1.04	-1.51	0.56	14	-0.82
NW197	-0.77	-0.72	-0.43	0.46	0.57	15	-0.80
NW1	0.23	-0.45	-1.04	-1.11	0.62	16	-0.66
ST123	-1.78	-0.18	-0.74	-0.72	0.67	17	-0.55
NT236	-0.10	-0.99	-1.65	-0.33	0.70	18	-0.47
NT178	0.57	-0.99	0.18	0.46	0.71	19	-0.43
NT133	-0.77	0.09	-0.13	-1.51	0.72	20	-0.42
NW41	-0.10	1.43	1.39	1.25	0.73	21	-0.38
NT51	-0.10	1.16	1.39	0.07	0.76	22	-0.32
NW211	0.23	1.16	0.18	-0.72	0.77	23	-0.29
NT117	0.90	0.09	-0.74	0.86	0.77	24	-0.28
NW68	-1.45	0.36	-0.74	-1.11	0.78	25	-0.25
NT19	0.57	0.36	-0.74	-1.11	0.82	26	-0.15
NW134	-0.10	-1.52	-1.34	0.07	0.82	27	-0.14
ST54	-0.77	1.16	0.78	0.07	0.85	28	-0.06
NW166	-0.44	0.62	1.09	1.64	0.88	29	0.01
ST176	-0.77	1.43	0.48	0.86	0.93	30	0.15
ST200	0.23	0.62	-0.74	-1.51	0.96	31	0.22
NW38	0.23	-1.52	-1.65	0.07	1.01	32	0.34
NW59	-0.44	0.89	1.39	-0.72	1.02	33	0.38
NT57	-0.77	0.62	1.69	0.07	1.04	34	0.41
NW152	-1.11	1.16	1.39	0.46	1.13	35	0.66
NW178	-0.44	-1.52	0.18	1.25	1.16	36	0.74
NT143	0.90	-0.72	0.18	2.04	1.16	37	0.76
NW72	-0.44	0.62	1.09	2.43	1.19	38	0.82
NW6	1.57	-0.99	-0.74	-0.72	1.20	39	0.85
NW88	1.24	-0.45	1.69	2.43	1.22	40	0.90
NT218	1.24	-1.25	-0.43	-1.51	1.24	41	0.95
NW216	1.24	-0.45	-1.65	-1.11	1.25	42	0.99
NT151	0.57	-2.33	-1.04	0.07	1.29	43	1.08
NT169	1.24	1.16	-0.13	-1.51	1.29	44	1.09
NT186	-0.77	0.36	2.30	0.07	1.30	45	1.11
ST266	1.57	-1.25	-1.04	-1.11	1.36	46	1.26
NW149	1.24	-1.52	-1.34	0.46	1.36	47	1.26
NT216	1.91	-0.99	-0.43	1.25	1.37	48	1.29
NW126	-2.45	0.89	0.48	-0.33	1.49	49	1.61
NW144	-1.45	1.97	1.09	-0.33	1.51	50	1.66
NW229	-1.78	1.70	-0.13	-1.11	1.51	51	1.67
NW24	-1.78	0.89	2.00	-0.33	1.62	52	1.96

For MPhil Thesis and related academic purpose only.

## **Appendix H**

**Copy of the fax from Dr. Mumford on Norms for Directors.**

**Document from**

**The International Management Centre from Buckingham**

(Please note that the original source fax could be presented when required. Photocopy of it appears faint in print. It was a copy of the original dated October 1986.)

**IMCB**  
Buckingham



Page 2

## The International Management Centre from Buckingham

Castle Street, Buckingham, Buckinghamshire, England MK18 1BS  
Telephone: Buckingham (0295) 817222, Telex: 51317 G

Jim Stradling  
12, The Warren  
Farnham, Surrey, GU14 2LE

Graham Robinson  
16, Picketry Lane  
London W13 0HG

10, Peter House

10 October 1981

Dear Jim, and Graham,

I thought you would be interested to know that I have done an analysis of the 70 completed Learning Styles Questionnaires I obtained through the Main Board Project. The average score was as follows:

	<u>Main Board Directors</u>	<u>General Mgmt</u>
<u>Activist</u>	8.1	9.3
<u>Reflector</u>	12.0	13.1
<u>Team Player</u>	13.4	12.5
<u>Pragmatist</u>	14.7	13.7

The differences do not I think indicate genetically different populations from the point of view of preferred learning styles. As usual the significant issues really are the tremendous range of preferences for particular individuals.

Yours sincerely,

Alan Mumford  
Professor of Management Development

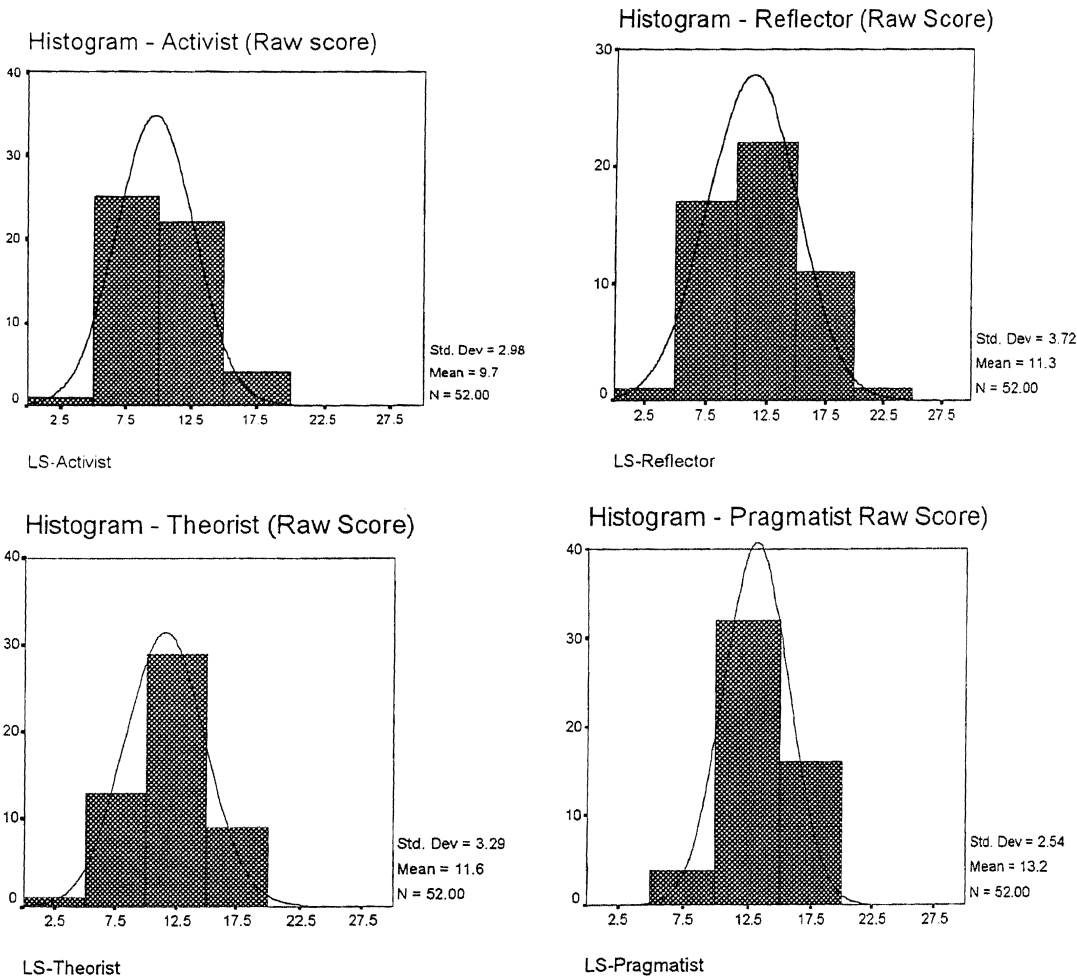
Appendix I

Descriptives: Learning Style Preferences

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std.	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error
LS-Activist	52	4	17	9.69	.41	2.981	.274	.330
LS-Reflector	52	4	20	11.33	.52	3.724	.293	.330
LS-Theorist	52	4	17	11.58	.46	3.292	-.405	.330
LS-Pragmatist	52	7	17	13.17	.35	2.542	-.492	.330
Valid N (listwis	52							

Graph: Illustration of data distribution



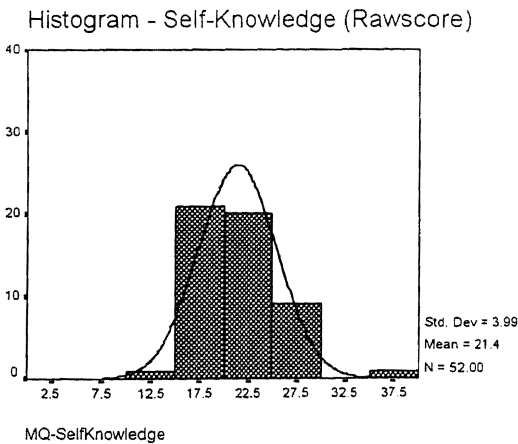
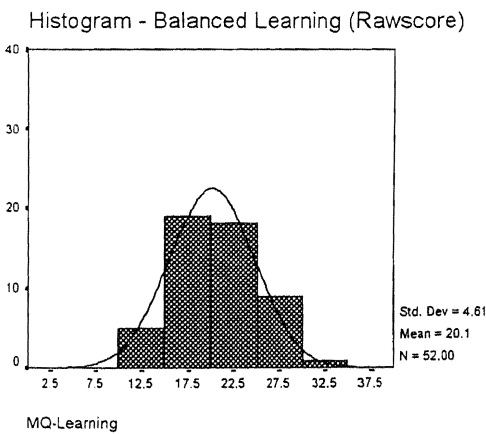
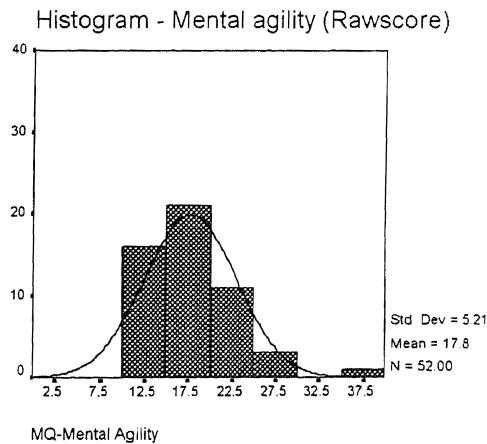
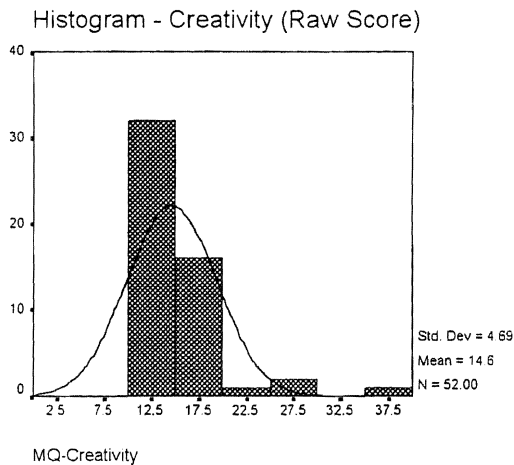
Appendix I

Descriptives: Meta Qualities

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std.	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Deviation	Statistic	Std. Error
MQ-Creativity	52	10	35	14.62	.65	4.687	2.101	.330
MQ-Mental Agilit	52	12	39	17.75	.72	5.213	1.627	.330
MQ-Learning	52	10	33	20.13	.64	4.615	.318	.330
MQ-SelfKnownled	52	13	35	21.42	.55	3.992	.808	.330
Valid N (listwise)	52							

Illustration of Data distribution



## Correlations

		Creativity	Mental Agility	Balanced Learning	Self Knowledge	Activist	Reflector	Theorist	Pragmatist
Creativity	Pearson Correlation	1	.239	.011	.221	-.055	.092	.151	.100
	Sig. (2-tailed)	.	.088	.941	.116	.699	.518	.286	.483
	N	52	52	52	52	52	52	52	52
Mental Agility	Pearson Correlation	.239	1	.358(**)	.322(*)	-.045	.346(*)	.221	.105
	Sig. (2-tailed)	.088	.	.009	.020	.749	.012	.115	.457
	N	52	52	52	52	52	52	52	52
Learning	Pearson Correlation	.011	.358(**)	1	.514(**)	.064	-.038	.137	.152
	Sig. (2-tailed)	.941	.009	.	.000	.650	.789	.334	.283
	N	52	52	52	52	52	52	52	52
Self Knowledge	Pearson Correlation	.221	.322(*)	.514(**)	1	-.162	.101	.245	.172
	Sig. (2-tailed)	.116	.020	.000	.	.252	.475	.080	.222
	N	52	52	52	52	52	52	52	52
Activist	Pearson Correlation	-.055	-.045	.064	-.162	1	-.425(**)	-.329(*)	.142
	Sig. (2-tailed)	.699	.749	.650	.252	.	.002	.017	.316
	N	52	52	52	52	52	52	52	52
Reflector	Pearson Correlation	.092	.346(*)	-.038	.101	-.425(**)	1	.606(**)	.021
	Sig. (2-tailed)	.518	.012	.789	.475	.002	.	.000	.883
	N	52	52	52	52	52	52	52	52
Theorist	Pearson Correlation	.151	.221	.137	.245	-.329(*)	.606(**)	1	.410(**)
	Sig. (2-tailed)	.286	.115	.334	.080	.017	.000	.	.003
	N	52	52	52	52	52	52	52	52
Pragmatist	Pearson Correlation	.100	.105	.152	.172	.142	.021	.410(**)	1
	Sig. (2-tailed)	.483	.457	.283	.222	.316	.883	.003	.
	N	52	52	52	52	52	52	52	52

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

